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August 24, 2009

Via E-Filing

The Honorable Anne K. Quinlan
Acting Secretary
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: STB Docket NOR 42114, *U.S. Magnesium, LLC v. Union Pacific Railroad Company*

Dear Ms. Quinlan:

Enclosed for e-filing in the above-captioned case please find the Opening Evidence of U.S. Magnesium, LLC ("USM"). USM is e-filing both a Highly Confidential and Public Version of its Opening Evidence. Highly Confidential information is redacted from the Public Version and is denoted with brackets [ ] in the Highly Confidential Version. Pursuant to the Board's e-filing procedures USM is filing the Highly Confidential version under seal.

USM is also hand delivering to the STB today three (3) compact disks to accompany this filing, which contain the electronic workpapers of USM's witnesses Mr. Kim Hillenbrand and Mr. Tom O'Connor.

Please feel free to contact me with any questions.

Sincerely,

Thomas W. Wilcox

Thomas W. Wilcox
Attorney for U.S. Magnesium, LLC

Enclosure
cc: Michael L. Rosenthal, Esq. (counsel for Defendant)

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

COMPLAINANT'S OPENING EVIDENCE

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August 24, 2009

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SURFACE TRANSPORTATION BOARD

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Defendant.	)	

COMPLAINANT'S OPENING EVIDENCE

Complainant US Magnesium, L.L.C. ("USM") hereby submits its Opening Evidence in this proceeding. This Opening Evidence consists of two parts: (a) a Counsel's Argument that summarizes the evidence submitted and discusses the legal standards to be applied in this case; and (b) the Verified Statements of (1) Mr. Howard I. Kaplan, Vice President, Chemicals and By-Products, US Magnesium L.L.C. ("Kaplan V.S."); (2) Mr. Kim N. Hillenbrand, senior analyst at the economic consulting firm of Snavely King Majoros O'Connor & Bedell, Inc. ("Hillenbrand V.S.") and, (3) Mr. Tom O'Connor, Vice President of Snavely King Majoros O'Connor & Bedell, Inc. Snavely King ("O'Connor V.S."), all providing written testimony and evidence in support of USM's Opening Evidence.

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

PART I - COUNSEL'S ARGUMENT

This case represents another manifestation of the recent decisions by the individual Nation's Class I railroads to limit or cease altogether the rail transportation of Toxic by Inhalation ("TIH") hazardous commodities by attempting to set the rates for such service so high that TIH commodities are either no longer shipped by rail, or they are shipped at extremely profitable rates only to the destinations and by the routing selected by the railroads. The Board faced a similar dispute in STB Docket No. 42100, *E.I. Dupont de Nemours and Co. CSX Transportation, Inc.*, ("*Dupont*") where it correctly rejected an attempt by CSX Transportation, Inc. to enforce a pricing policy for shipping chlorine

admittedly designed to discourage or eliminate altogether the rail transportation of chlorine on CSXT's system. As in *Dupont*, this case involves the application of the Three Benchmark Methodology adopted by the Board in Ex Parte No. 646 (Sub - No. 1) *Simplified Standards for Rail Rate Cases*, (served September 5, 2007) ("*Simplified Standards*"); *recon. denied* March 19, 2008; *aff'd, CSX Transportation, Inc. et al v. Surface Transportation Board,* 568 F.3d 236 (D.C. Cir. 2009).

The Union Pacific Railroad Company ("UP") and other individual Class I railroads, and the Association of American Railroads, have all publicly stated that, if not for the statutory common carrier obligation to provide transportation upon reasonable request under 49 U.S.C. §11101, they would not transport TIH commodities, in USM's case, chlorine (STCC 2812815). UP and other Class I railroads have also continued to aggressively raise rates for TIH transportation and attempt to shift costs and risks to their customers. In its Opening Evidence, USM provides additional evidence specific to UP's overall TIH pricing strategy as applied to USM and the two movements at issue in this case. USM also demonstrates that the rates UP has established for the transportation of chlorine produced by USM from its Rowley, Utah facility to Eloy and and Sahuarita, Arizona are presumptively unreasonable and unlawful under the Three Benchmark Methodology, and should be prescribed at even at lower levels than application of the methodology produces. Finally, USM also provides evidence and argument supporting a request to the Board that the facts and circumstance of this dispute justify increasing the

damage relief cap of $1,000.000 over five years that would otherwise apply in this Three Benchmark case.

I. BACKGROUND OF THE DISPUTE

A. Identification of USM and its Rowley, Utah Origin Facility

As Mr. Kaplan further supports with testimony in his Verified Statement, USM is a corporation organized under the laws of the State of Delaware with its principal place of business in Salt Lake City, Utah. USM specializes in the manufacture and supply of magnesium ingot products, magnesium recycling services, chemical by-products, and energy. USM is the only producer of primary magnesium in the United States, operating a manufacturing facility at Rowley, Utah on the Great Salt Lake, where magnesium has been produced by USM and its predecessors in interest since 1972. USM's operations in Rowley began with the 2002 purchase by USM of the assets of Magcorp and the ongoing magnesium business that Magcorp had established there.

USM's magnesium production facility at Rowley also produces a variety of co-products, which include chlorine, calcium chloride, iron chlorides, and hydrochloric acid. Chlorine is a necessary co-product of USM's because the feedstock for USM's operations is the vast amount of magnesium chloride present in the Great Salt Lake. USM uses solar energy to remove water using an extensive system of evaporative ponds in order to concentrate raw brine so that the lake's magnesium chloride can be electrolyzed to produce magnesium and from the chemical reaction, chlorine. The production ratio of magnesium and chlorine at the Rowley facility is approximately one to one. The volume of chlorine

produced by USM in a given year is therefore directly related to the demand for magnesium in the United States and the world, and this demand can vary from year to year. While USM is the only producer of magnesium in North America, USM in general is considered a relatively small shipper of chlorine on UP's system.

Prior to 2001 a significant portion of the chlorine produced by USM's magnesium manufacturing processes was vented into the atmosphere pursuant to permits issued under the Federal Clean Air Act. However, due to more stringent permitting requirements, USM now captures and sells essentially all the chlorine produced during the magnesium manufacturing process, and if the chlorine cannot be collected for sale, USM must cut overall production of magnesium, incur the costs of scrubbing the chlorine, or pay monetary penalties.

Chlorine is crucial to the health of millions of Americans due to its widespread use in water purification. In addition, chlorine is vital to the U.S. economy because it is used as a building block in many essential and diverse products used throughout the economy from plastics to pharmaceuticals. Chlorine is an essential and vital part of modern life. Chlorine appears in products involving an estimated 40% of the nation's economy.[1]

B. Description of the Movements at Issue

The movements that are the subject of this Complaint originate at the Rowley facility and terminate at the rail facilities of USM customers located in Eloy, AZ, and

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[1] See website of the Chlorine Institute at http://www.chlorineinstitute.org. *See also,* O'Connor V.S., Exhibit ____ (TOC - 2).

Sahuarita, AZ, which are located approximately 45 miles northwest and 20 miles south of Tucson, AZ, respectively. Maps showing the two movements are attached as Counsel's Exhibit 1. Both movements occur on lines owned and/or operated by UP and are transported in single line UP service as UP is the only railroad with access to the Rowley facility and these destinations. Complaint at paragraphs 5 and 6; Answer at paragraphs 5 and 6. As calculated by USM, the Eloy movement is 1,325 miles one way from the Rowley facility, and the Sahuarita movement is 1,260 miles one way from the Rowley facility. *See,* Hillenbrand V.S. at 7. USM shipped [ ] railcars of chlorine to its customer in Eloy in 2008, and [ ] rail cars of chlorine to its customer Sahuarita in 2008. While forecasting annual chlorine volumes is difficult because they are tied directly to magnesium production, USM projects between 2009 and 2013 it will ship an average of [ ] rail cars per year to Eloy, and an average of [ ] rail cars per year to Sahuarita. *See,* Kaplan V.S. at 8.

C. Events Leading to the Filing of USM's Complaint

Historically, relations between UP and USM have been good, and prior to 2008 USM and UP were able to enter into mutually acceptable rail transportation agreements that USM believed were generally reasonable and fair to USM but also generated significant profits for UP. *Id.* at 6. Beginning with 2008, however, UP has aggressively sought to significantly increase its rates for transporting USM's chlorine. In 2007, as a contract between the parties was set to expire, UP responded to USM's request for new contract rates by [ ] to Eloy and proposing a rate of [ ] per

carload to Sahuarita, the latter of which nearly doubled the expiring contract rates for Sahuarita. Expiring contract rates to numerous other destinations were also nearly doubled. UP marketing personnel also informed USM during the negotiations that if the law did not require UP to transport USM's chlorine it would not do so. *Id.* at 6. USM could not accept the 2008 rate levels proposed by UP. After negotiations and threats by USM to seek relief from this Board, UP eventually reduced the initially proposed contract rates and USM reluctantly entered into a one year contract for calendar year 2008 that nevertheless significantly increased rates over 2007 levels. Under this contract, the 2008 per car rates for Eloy and Sahuarita were [,] respectively. UP did not explain the reasons for the [ ] per car rate differential for these two destinations despite their being less than 70 miles apart.

In October, 2008 USM approached UP about a new contract for chlorine movements to replace the 2008 contract when it expired at the end of the year. UP did not immediately respond to USM's proposal, causing USM to seek an extension of the 2008 contract term, which UP granted. UP finally responded with a contract proposal on January 5, 2009, and at that time proposed to increase all 2008 rate levels, which had already been increased on average 130% of the 2007 contract rates, still another 200%. *Id.* at 7. UP continued to state in its discussions with USM that it did not want to ship chlorine, and that UP was pricing chlorine freight rates in order to de-market chlorine and end its shipment by railroad. *Id.* The contract rate proposal from UP for 2009 was absolutely unacceptable to USM, which considered it unfair, unreasonable and predatory.

Id. In the case of the rate for transportation to Eloy, Arizona, the 2009 contract rate of [ ] proposed by UP was 188% of the 2008 rate. The [ ] rate to Sahuarita was 192% of the 2008 rate. To USM's knowledge, no operational aspect of the Eloy movement had changed since 2008 that would justify this level of increase, or the continued large differential between the Eloy rate and the Sahuarita rate.

By letter dated January 16, 2009 USM requested that UP provide USM with common carrier rates for the shipment of USM's chlorine to Eloy, Sahuarita, and thirty-two other destinations, informing UP that if the parties could not reach a negotiated solution "we see a distinct possibility that US Magnesium will reluctantly decide to seek a rate reasonableness determination from the Surface Transportation Board." *Id*; Kaplan V.S., Exhibit 1. In response, on January 26, 2009, UP established the requested tariff rates and service terms for shipments of chlorine to Eloy and Sahuarita and 29 other destinations in UP Tariff 4949, Item 1000. However, the common carrier rates being challenged in this proceeding were another 10% higher than the 2009 proposed contract rates, thus increasing the rates for transporting USM's chlorine an average of 210% over the 2008 rate levels, and approximately 273% over 2007 levels. The rates went into effect on February 15, 2009, and USM began shipping under them on March 3, 2009. UP has subsequently re-published the rates to Eloy and Sahuarita without change in updated versions of UP Tariff 4949, Item 1000.

II. UP'S TIH COMMODITY PRICING STRATEGY

The events leading up to the institution of this complaint proceeding are consistent with the position adopted by UP and other Class I railroads in the past several years that, although they are legally required to transport chlorine and other hazardous materials as railroad common carriers, and have done so safely for many years, they no longer wish to do so. This view has been expressed repeatedly by UP and other Class I railroads in various public forums and Board proceedings. *See* Ex Parte No. 677 (Sub. No.1) *Common Carrier Obligation of Railroads – Transportation of Hazardous Materials*, Written Testimony of Union Pacific Railroad Company at 6 ("[UP] prefer[s] not to carry TIH commodities . . ."); *see also, E.I. Dupont de Nemours and Co. CSX Transportation, Inc.*, STB Docket No. 42100 (served June 30, 2008)("*DuPont*").[2] To the Board's credit, it has thus far declined to accept the railroads' various vague and unsupported reasons for seeking permission to be relieved of their legal obligation to transport chlorine and other hazardous commodities. *See, e.g.* STB Finance Docket No. 35219, *Union Pacific Railroad*

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[2] *See also,* March 23, 2009 – The Journal of Commerce, "Railroads, Shippers Struggle Over Chlorine"("Edward R. Hamberger, president and CEO of the Association of American Railroads, said in a recent radio interview railroads would not haul such TIH cargoes if they were not required to by law."; January 15, 2007 – The Journal of Commerce, "On Dangerous Ground" ("'Absent this (common-carrier) obligation, Norfolk Southern would not transport these materials,' NS President Wick Moorman told the House subcommittee. 'Norfolk Southern does not make these highly hazardous materials. Norfolk Southern does not use these highly hazardous materials. And Norfolk Southern does not make enough money transporting these hazardous materials to justify the risks the federal government requires us to take.'").

Company – Petition for Declaratory Order (served June 11, 2009) at 4-5 (where Board, citing a long and established line of agency and judicial precedent, denied UP's request to be excused from the legal obligation to supply rates and service terms to USM for transportation of chlorine to four Gulf Coast destinations).

At the same time they have attempted to obtain relief from the legal obligation to carry chlorine and other TIH materials, UP and the other Class I railroads have sought to drive these commodities off of their respective systems by making the cost to ship them prohibitively expensive. UP adopted and began implementing such a strategy in the 2005 timeframe. This strategy involved [

.] Exhibit 2 to this Section I of USM's Opening Evidence is a series of documents produced by UP in discovery in this case which exemplify this multi-pronged TIH pricing strategy. Providing a more detailed description of UP's pricing strategy and its adverse effects on the Three Benchmark Methodology is the attached Verified Statement of Tom O'Connor, who provides additional support for USM's request for increasing the damage relief limit in this proceeding set forth in Section VII of this Part I, below.

III. UP HAS CONCEDED IT HAS MARKET DOMINANCE OVER THE TRANSPORTATION TO WHICH THE CHALLENGED RATES APPLY

The Board only has jurisdiction over the reasonableness of railroad rates if the defendant railroad has market dominance over the traffic at issue. 49 U.S.C. §10707. Market dominance is both quantitative, in that the challenged rates must be greater than 180% of the railroad's variable costs of providing the service as calculated by STB procedures, and qualitative, in that there can be no effective intramodal alternatives to the defendant for the transportation at issue. In this case, there is no dispute that UP has both quantitative and qualitative market dominance over the transportation of chlorine from USM's Rowley, Utah facility to USM's customers in Eloy and Sahuarita. Specifically, UP admitted in its Answer to USM's Complaint that (1) the challenged rates "produce revenues in excess of 180% of UP's variable costs of providing that transportation," Answer at paragraph 16, and (2) "[UP] could not prevail on the issue of whether there was qualitative evidence of effective competition from other carriers or modes of transportation for the movements of chlorine from Rowley to Eloy and Sahuarita under the standards currently being applied by the Board." *Id.* at paragraph 15. UP's admission of quantitative market dominance is confirmed by the URCS Phase III variable cost calculations of Mr. Hillenbrand in support of USM's maximum rate calculations, which produce revenue to variable cost ratios of over 500% for Eloy and over 400% for Sahuarita. Hillenbrand V.S. at 8. UP's admission of qualitative market dominance is in response to the discussion of market dominance in paragraphs 11-15 of the Complaint included pursuant to 49 C.F.R.

§1111.1(a)(10), which are hereby incorporated by reference. *See also*, Kaplan V.S at 2-3. Accordingly, USM has met its burden of demonstrating market dominance over the transportation to which the rates challenged by its Complaint apply. 49 U.S.C. §10707.

IV. USM'S COMPARISON GROUP MEETS THE COMPARABILITY FACTORS ADOPTED BY THE STB IN *SIMPLIFIED STANDARDS*, AND USM HAS DEMONSTRATED THAT THE CHALLENGED RATES ARE PRESUMPTIVELY UNREASONABLE

A. USM's Comparison Groups for the Issue Movements

In *Simplified Standards*, the Board established that "[t]he purpose of the R/VC COMP benchmark is to use the R/VC ratios of other 'potentially captive traffic' (i.e., traffic priced above the 180% R/VC level) as evidence of the reasonable R/VC levels for traffic of that sort." *Simplified Standards* at 17. The Board also enumerated several factors to be considered in establishing a comparison traffic group that achieved this purpose. These criteria were applied by the parties and the Board in *DuPont*, providing additional guidance on the Board's intent. The testimony set forth in the Verified Statement of Mr. Hillenbrand describes the procedures USM used to select the initial comparison groups ("USM R/VC_{COMP} Group") for the Eloy movement and for the Sahuarita movement following the *Simplified Standards* and the Board's *DuPont* decision. The movements making up the USM R/VC_{COMP} Group for each issue movement were selected from the 2004-2007 unmasked confidential Waybill Sample provided to the parties by the Board on May 15, 2009, and each group contains the following characteristics:

1. Car Type and Ownership

Consistent with industry practice, USM shipments of chlorine are transported in specialized railroad tank cars supplied by USM to UP for this transportation. Kaplan V.S. at 5. Since use of private cars has a significant impact on transportation costs and rate setting, the USM R/VC_{COMP} Groups include only TIH shipments that travel in private-owned rail tank cars. Hillenbrand V.S. at 10; *DuPont* at 7.

2. Exclusion of Issue Traffic

The issue traffic has been excluded from the USM R/VC_{COMP} Groups in accordance with *Simplified Standards*. Hillenbrand V.S. at 10; *DuPont* at 7.

3. Movements in Single Line UP Service

UP provides single line/local service for the issue traffic, meaning that both movements originate and terminate on the UP. Accordingly, the USM R/VC_{COMP} Groups only include single line UP traffic. In *Simplified Standards*, the STB has also directed that non-defendant traffic be excluded from the analysis. *Simplified Standards* at 82. Accordingly, the USM R/VC_{COMP} Groups exclude service by Class I rail carriers other than UP. Rule 11 and rebilled movements are also excluded from the analysis. Hillenbrand V.S. at 10.

4. Cross Border Traffic

Because the issue movements travel within the United States, all cross border movements are excluded from the USM comparison groups. *Id.*

5. Traffic with an R/VC greater than 180%

The USM R/VC_{COMP} Groups are limited to movements with an R/VC of 180% or higher in accordance with *Simplified Standards. Id.*

6. Movements of Similar Distance

The USM R/VC_{COMP} Groups are comprised of comparable movements of similar distance. Specifically, consistent with the Board's treatment of this comparison factor in *DuPont*, USM calculated the actual loaded miles for each movement using materials produced by UP in discovery, and then selected comparable movements with a loaded mile range of plus or minus 200 miles of the issue traffic movement loaded miles. *See, DuPont* at 8, note 25; Hillenbrand V.S. at 11.

7. Movements of Like Commodities

Following the Board's application of this comparability factor in *DuPont*, the USM R/VC_{COMP} Group for each issue movement consists entirely of movements of chlorine and other TIH commodities. *Id.* at 8; *DuPont* at 8-9.

8. Contract and Common Carrier Traffic

The Board stated in *Simplified Standards* that, "holding everything else constant, a comparison group that consists of just common carrier traffic will be selected over a group that includes contract traffic." *Simplified Standards* at 83. However, to the best of USM's

knowledge, it is the only UP customer currently shipping chlorine pursuant to common carrier rates and service terms. Accordingly, USM submits that any comparison group assembled under the Three Benchmark Methodology for a challenged chlorine movement will necessarily contain a mixture of common carrier and contract service for TIH transportation. USM further submits that under the current pricing strategy for chlorine and TIH commodities by the Nation's Class I railroads, there is little or no distinction between contract rates and terms and common carrier rates and terms.

B. Calculation and Application of the Ratio of the RSAM ÷ R/VC>180

The next step in the procedures outlined in *Simplified Standards* is to apply the "Revenue Shortfall Allocation Method" ("RSAM") and R/VC>180 benchmarks to the selected Comparison Group. *Simplified Standards* at 19-21. The RSAM benchmark is intended to measure the average markup that a railroad would need to collect from all "its potentially captive traffic" to earn adequate revenues. *Id.* at 10. The R/VC>180 benchmark measures the average markup that was actually applied by a railroad in its rates for potentially captive traffic. These two benchmarks are used to compute a revenue need adjustment factor for the railroad. *Id.* at 19. At pages 12 – 13 of his Verified Statement, Mr. Hillenbrand calculates the revenue need adjustment for this proceeding used the four year average of UP's RSAM and R/VC>180 from 2004 to 2007 contained in the STB's decision served on May 12, 2009 in Ex Parte No. 689, *Simplified Standards for Rail Rate Cases – 2007 RSAM and R/VC>180 Calculations.* This application resulted in a 1.41 adjustment to the R/VC of each movement in the comparison group. Hillenbrand V.S. at

13. Mr. Hillenbrand then calculated the maximum R/VC for each of the two issue movements following the procedures set forth in *Simplified Standards* by first adjusting each movement in each comparison group by the 1.41 revenue need adjustment ratio, and then calculating the mean and standard deviation of the R/VC ratios for each adjusted comparison group. *Id.* Using the mean and standard deviation of each adjusted comparison group Mr. Hillenbrand next calculated the 90% confidence interval around the estimate of the mean to determine the upper boundary level of the mean estimate of each comparison group. The challenged rate is presumed unreasonable if the challenged rate's R/VC ratio is greater than the upper boundary mean of the adjusted comparison group. *Simplified Standards* at 21.

The table set forth below summarizes Mr. Hillenbrand's computations of the maximum reasonable rates and maximum R/VC ratios for USM's Eloy and Sahuarita movements for the first quarter of 2009.

Maximum Rate and R/VC 1Q 2009

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,598	$2,495
3.	R/VC	516%	417%
4.	Maximum R/VC	310%	302%
5.	Maximum Rate per Carload	$8,062	$7,524
6.	Rate Reduction per Carload	$5,334	$2,886

Hillenbrand V.S. at 14, and related Verified Statement Exhibits.

V. OTHER RELEVANT FACTORS WARRANT A FURTHER REDUCTION OF THE PRESUMED MAXIMUM REASONABLE RATES

USM has demonstrated that the common carrier railroad rates UP has established under Tariff 4949, Item 1000 for transportation from Rowley, Utah to Eloy and Sahuarita, Arizona, are presumptively unreasonable. Under the Three Benchmark Methodology, either party may present evidence that the presumed maximum lawful rate should be higher, or lower, due to narrowly prescribed "other relevant factors." *Simplified Standards* at 22. The burden is on the party proposing to increase or decrease the rate based on "other relevant factors" to rebut the presumption of unreasonableness, and the party seeking such adjustments to the rates must quantify them. Such evidence can include "market changes not reflected in the comparison group or the average RSAM and R/VC> 180 benchmarks." *Id.* at 85. USM submits that UP's overall TIH pricing strategy discussed previously and in Mr. O'Connor's Verified Statement constitutes an "other relevant factor" that warrants a further reduction in the rate levels produced by application of the Three Benchmark Methodology to comply with the principles set forth in the third Long Cannon factor that determines "...whether one commodity is paying is paying an unreasonable share of the carrier's overall revenues." 49 U.S.C. §10701(d)(2)

Specifically, the STB's $R/VC_{>180}$ Benchmark for UP is developed using the total revenue earned by UP on all of its potentially captive traffic (R/VC ratio equal to or greater than 180%). Thus, the $R/VC_{>180}$ Benchmark develops the <u>average</u> markup over the variable cost earned by UP on all of its potentially captive traffic regardless of commodity.

As demonstrated by Mr. Hillenbrand, this relationship can be demonstrated for all potentially captive TIH traffic on UP's system and applied to the same selection criterion used to select the comparison group in this case, except for the mileage limitation. This analysis captures all UP single line movements of TIH commodities transported in privately owned tank cars. Hillenbrand V.S. at 15. When compared to the R/VC>180 Benchmark for all UP traffic, this "TIH R/VC>180 Benchmark" demonstrates that the revenue contribution to UP from TIH commodities is [

] Mr. Hillenbrand demonstrates that using the "TIH R/VC>180 Benchmark" in the Three Benchmark maximum reasonable rate calculations for the Eloy and Sahuarita issue movements reduces the revenue need adjustment ratio from 1.41 to [,] *Id* at 17, causing an adjustment of the 1Q09 maximum reasonable rates for the issue movements following the procedures outlined in *Simplified Standard* as follows:

Maximum Rate and R/VC 1Q 2009 Using TIH $R/VC_{>180}$ Adjustment

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,598	$2,495
3.	R/VC	516%	417%
[4.	Maximum R/VC		]
[5.	Maximum Rate per Carload		]
[6.	Rate Reduction per Carload		]

Id. at 17 and related Exhibits.

VI. THE LIMIT ON RELIEF SHOULD BE INCREASED IN THIS CASE

USM has demonstrated by applying the Three Benchmark Methodology of the *Simplified Standards* that the common carrier rates UP has established for the transportation of chlorine from USM's Rowley facility to Eloy and Sahaurita AZ are presumptively unreasonable, and in fact the rate levels produced by that analysis are still too high. In addition to reducing the challenged rates to the maximum reasonable level demonstrated by USM's Opening Evidence, the Board should also take the additional step in this proceeding of increasing the limitation on relief of $1,000,000 over five years otherwise applicable in Three Benchmark cases. In *Simplified Standards*, the Board specifically stated it would consider this possibility on a case-by-case basis because it acknowledged that railroads facing a potential challenge to common carrier rates could try to manipulate the Three Benchmark Methodology and the outcome of a formal rate challenge. *Simplified Standards* at 33. The example cited by the Board was "if a small shipper wanted to challenge a rate under the Three-Benchmark approach, but the carrier facing litigation elected to raise the rate so the annual transportation charges increases by $200,000, the small shipper would have little choice but to bring a Simplified-SAC case." *Id.* The facts of this case are very similar to this scenario. In this proceeding, reducing the extremely high initial rates established by UP for this traffic to the presumptively maximum reasonable levels calculated by USM (Hillenbrand V.S. at Table VII) will produce a differential that, when multiplied by the estimated volumes over the prescription

period (Kaplan V.S. at 8), adds up to approximately $2,000,000 over five years. This amount increases if the Board accepts USM's proposed further reduction. Hillenbrand V.S. at Table VIII). *See also,* O'Connor V.S., Exhibit ___ (TOC - 6). As support for its request that the Board increase the relief cap in this case, USM submits the following arguments.

First, while UP and USM have had a long and generally favorable relationship, UP clearly knew that it was facing litigation at this Board with USM over the 2009 rates it was proposing to USM. USM had strongly considered seeking Board intervention the year before. Kaplan V.S. at 6. As it prepared to supply USM its initial contract proposal on January 5, 2009, UP [

] The possibility of the parties being before this Board became more likely after UP submitted its January 5, 2009 contract proposal. When USM submitted its formal request for common carrier rates to UP on January 16, 2009, USM informed UP that USM saw "a distinct

possibility that U.S. Magnesium will reluctantly decide to seek a rate reasonableness determination from the Surface Transportation Board" if the parties were unable to reach a negotiated solution. Kaplan V.S. at 7, Kaplan Exhibit 1. USM submits that UP, in anticipation of one or more Three Benchmark cases being filed by USM, intentionally established the common carrier rates for Eloy and Sahuarita at levels high enough to try to discourage USM pursuing relief for these two movements via the Three Benchmark methodology.

Second, even if UP did not establish the challenged rates for the Eloy and Sahaurita movements at their extraordinarily high levels with the specific intent of gaming USM's access to the *Simplified Standards* for the two issue movements, UP's overall TIH pricing strategy, as applied to USM, nevertheless "games" the Three Benchmark methodology for USM and other TIH shippers by making use of it highly problematic absent increases in the five-year relief cap. This is because the UP's TIH pricing policy, which it apparently ultimately decided not to deviate from in its negotiations with USM, is not based on any commercial or cost justification, but rather on [

.] As such, the policy by definition calls for [

]. Presumably, when the Board established the $1,000,000 relief cap for Three Benchmark cases, it did so based on the

assumption that railroads would price their services more rationally. Rate levels established pursuant to such a de-marketing policy, when reduced to their maximum reasonable levels through application of the Board's rules cause the $1,000,000 relief cap to be used up more quickly over the five year period for TIH movements than rates for commodities not subject to such de-marketing strategies.

Finally, while Eloy and Sahuarita are less than 70 miles apart, the challenged common carrier rate Eloy is $2,986 per car higher than the challenged rate for Sahuarita. UP has never adequately explained to USM the reason for this large discrepancy and there does not appear to be any operational or cost rationale. USM specifically asked UP in discovery for a detailed explanation of "any and all reasons" for the differential, and received only a vague, unspecific response from UP. Counsel's Exhibit 3. USM maintains such pricing behavior in the context of rate cases applying the Three Benchmark methodology should be considered by the Board in response to requests such as USM's to increase the $1,000,000 relief cap over the five year prescription period.

In summary, USM believes the specific facts and circumstances of this Three Benchmark case provide ample cause and justification for the Board to increase the limit on rate relief in this proceeding from $1,000,000 to $2,000,000 over the five year prescription period.

VII. CONCLUSION

In conclusion, USM has demonstrated that the common carrier rate levels established by UP for the Eloy and Sahuarita movements are presumptively unreasonable

and unlawful, and that these presumed unreasonable rate levels should be further reduced by "other relevant factors" as discussed in this Opening Evidence and the Verified Statements attached hereto. USM has also demonstrated that the Board should increase the limit on rate relief that would otherwise apply in a Three Benchmark case. Accordingly, USM hereby respectfully asks the Board to:

(1) find that UP's common carrier rates applicable to the transportation of chlorine between Rowley, UT and Eloy, AZ and Sahuaria, AZ are unreasonable;

(2) prescribe just and reasonable rates for the future applicable to the rail transportation of USM's traffic, pursuant to 49 U.S.C. §§ 10704(a)(1) and 11701(a);

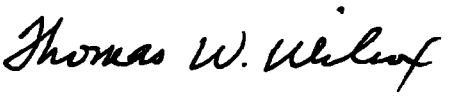
(3) award USM reparations, plus applicable interest, in accordance with 49 U.S.C. § 11704 for unlawful rates set by UP for the period beginning March 3, 2009 to the date UP establishes just and reasonable rates prescribed by the Board in this proceeding;

(4) order that the limit on relief in this proceeding shall be $2,000,000 over the five year prescription period; and

(5) grant to USM such other and further relief as the Board may deem proper under the circumstances.

(Signature on following page)

Respectfully submitted,



Thomas W. Wilcox
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1054 Thirty-First Street, NW
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Washington, DC 20007
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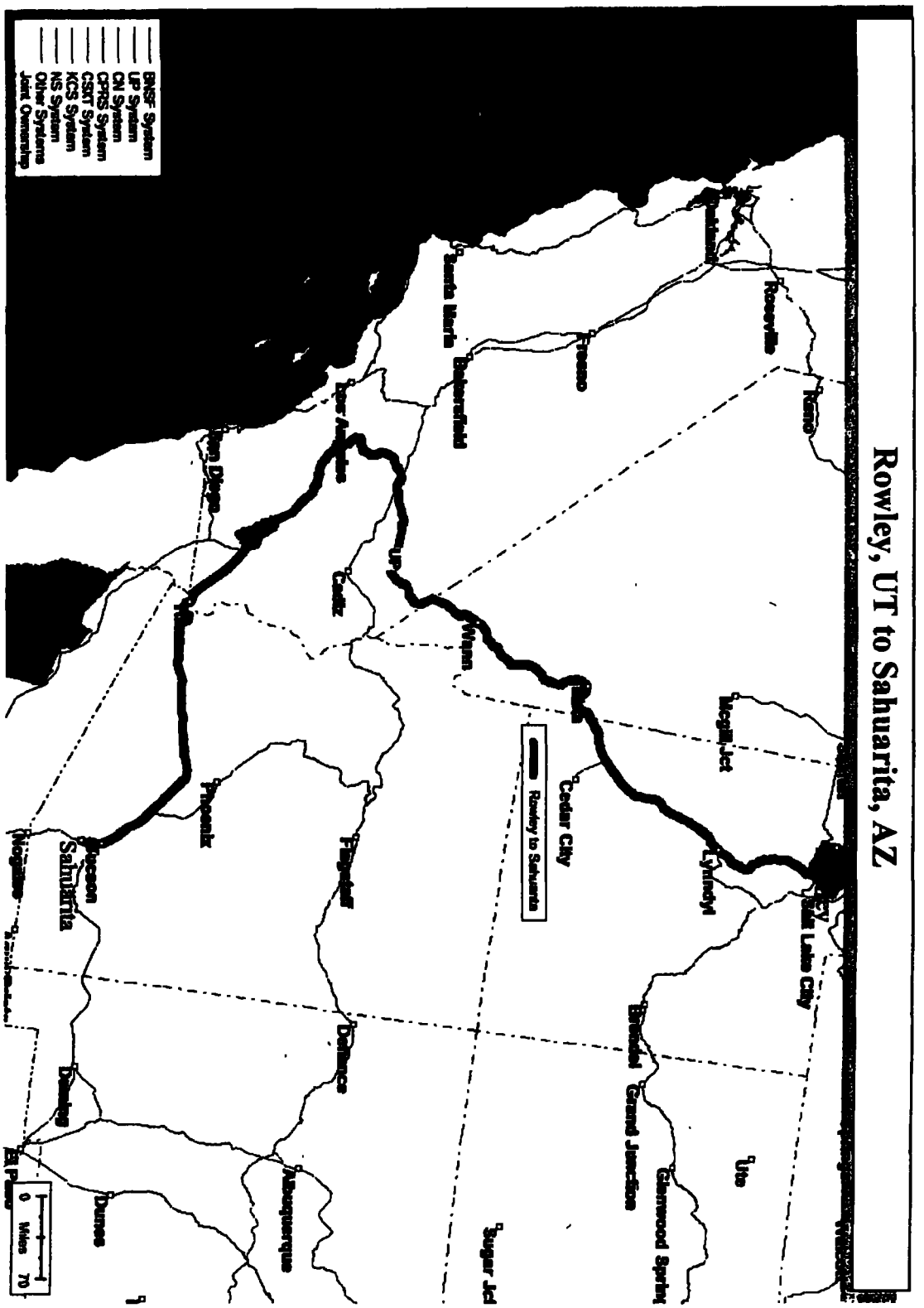
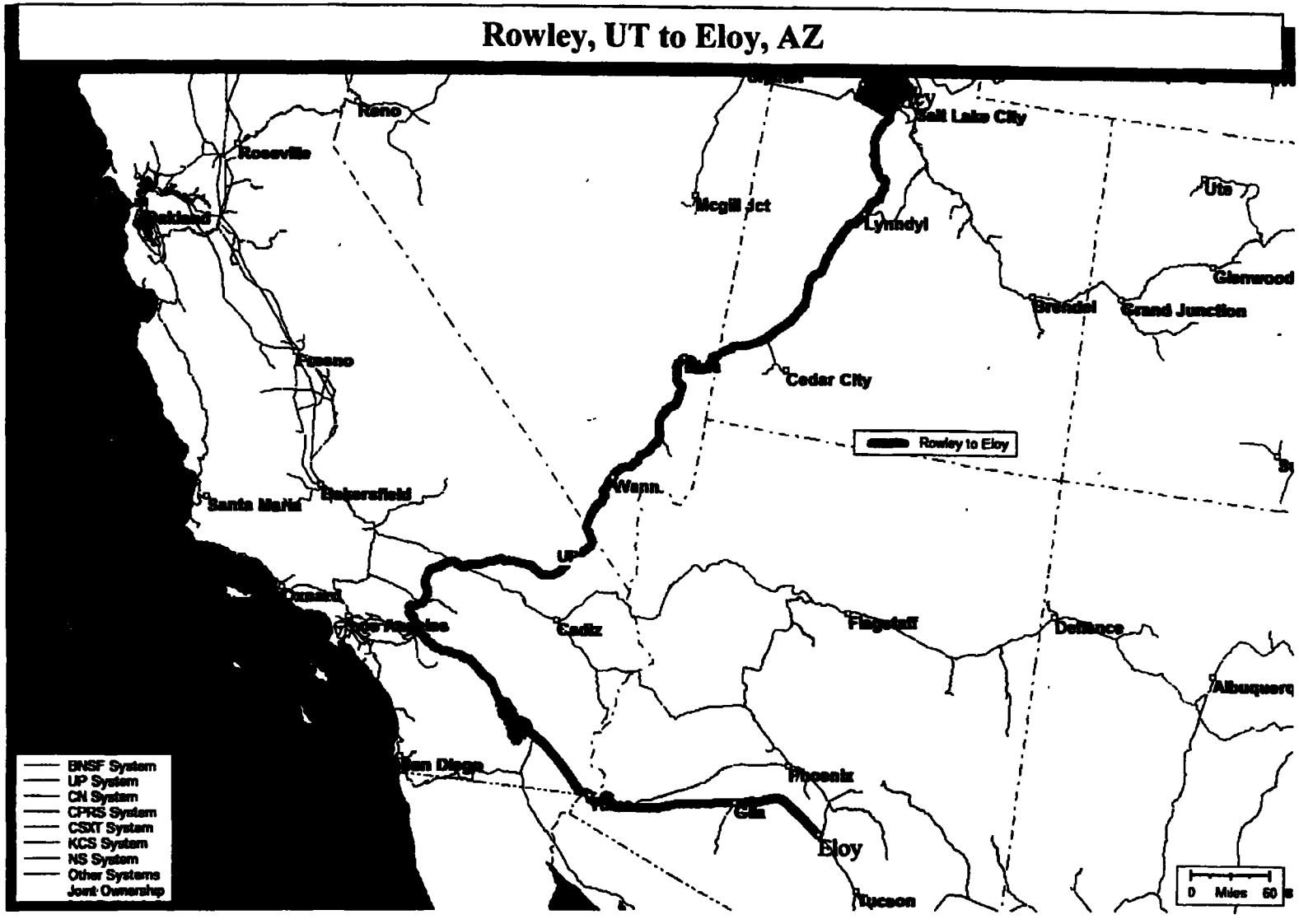
Attorneys for Complainant US Magnesium L.L.C.

Dated: August 24, 2009

Counsel's Exhibit 1




Rowley, UT to Eloy, AZ
Reno
Roseville
Oakland
Fresno
Bakersfield
Santa Maria
Salt Lake City
Utah
Lynndyl
Cedar City
Glenwood
Grand Junction
Rowley to Eloy
Wann
Cadiz
Flagstaff
Defiance
Albuquerq
Phoenix
Eloy
Tucson
San Diego
BNSF System
UP System
CN System
CPRS System
CSXT System
KCS System
NS System
Other Systems
Joint Ownership
0 Miles 60

HIGHLY CONFIDENTIAL
COUNSEL'S EXHIBIT 2 REDACTED

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.,	)	
Complainant,	)	
v.	)	Docket No. 42114
UNION PACIFIC RAILROAD COMPANY,	)	
Defendant.	)	

UNION PACIFIC'S OBJECTIONS AND RESPONSES
TO COMPLAINANT'S FIRST SET OF DISCOVERY REQUESTS

Union Pacific Railroad Company ("UP") responds to the First Set of Discovery Requests of US Magnesium L.L.C. ("USM"), served on June 24, 2009, as follows:

GENERAL RESPONSES

The following General Responses apply to each of USM's discovery requests:

1. UP is conducting a reasonable search for information responsive to the document requests.

2. Production of information does not necessarily imply that it is relevant to or admissible in this proceeding and is not to be construed as waiving any objection stated herein.

3. In line with past practice in cases of this nature, UP has not secured verifications of the answers to interrogatories herein. UP is prepared to discuss the matter with USM if this is of concern with respect to any particular answer.

UP Response:

UP specifically objects to this request on the grounds that the term "final disposition" is undefined, vague, and ambiguous.

Subject to and without waiving its General Objections and its Specific Objection, UP states that it will produce copies of the DOT Form F 5800.1 "Hazardous Material Incident Reports" that UP has filed with the FRA between January 1, 2004 and May 4, 2009.

Interrogatory No. 6:

Provide and explain in detail any and all of the reasons why the common carrier rate provided to Eloy, AZ in Tariff 4949, Item 1000A is $2986 per carload higher than the common carrier rate provided for Sahuarita, AZ, specifically including, but not limited to, (a) any and all reasons why the two rates were established at their respective levels in Tariff 4949, 1000A despite the fact that the two destinations are approximately 66 miles apart; (b) any and all operational differences between the two destinations that factored into the rate differential; (c) any and all additional costs for transporting chlorine to Eloy, AZ that factored into the rate differential; and (d) any and all other reasons.

UP Response:

UP specifically objects to this request on the grounds that UP's specific reasons for establishing the challenged rates are irrelevant in a Three-Benchmark Case.

Subject to and without waiving its General Objections and its Specific Objection, UP states that it considers a wide variety of factors in endeavoring to set a price that reflects market conditions, which include but are not limited to costs associated with a movement. UP further states that it incurs higher train operating costs in transporting USM's chlorine to Eloy than Sahuarita because USM's chlorine shipments to Eloy move first to Tucson, then via a local train to Casa Grande, then via another local train to Eloy, whereas USM's chlorine shipments to Sahuarita move first to Tucson, then via a single local train to Sahuarita. *See also* UP's Initial Disclosures.

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

VERIFIED STATEMENT OF HOWARD I. KAPLAN

My name is Howard I. Kaplan. I am currently employed by US Magnesium, LLC ("USM") as a contractor with the title of Vice President, Chemicals and By-Products at USM's Rowley, Utah production facility located on the shores of the Great Salt Lake, 60 miles from Salt Lake City. The Rowley facility, which has produced magnesium from the magnesium chloride rich waters of the Great Salt Lake since 1972, is the only surviving magnesium producer in North America. I have worked in the magnesium business in Rowley and Salt Lake City since 1981. For 14 years, I was the Vice President of Sales for Magcorp (a predecessor of USM) where I was responsible for all sales of Magnesium Metal and Chemical co-products (including chlorine) and Chemical By-Products. My current duties for USM include responsibility for all aspects of

chemical sales and marketing, including responsibilities for transportation negotiations and railcar and regulatory compliance.

I am the same Howard Kaplan who testified before the Surface Transportation Board on July 22, 2008 as part of the Board's public hearing in Ex Parte No. 677 (Sub-No. 1) *Common Carrier Obligations of Railroads – Transportation of Hazardous Materials*, and I also submitted written testimony in the record of that proceeding, where Union Pacific Railroad Company ("UP") and other class I railroads informed this Board that they would not transport chlorine and other Toxic by Inhalation Hazardous ("TIH") materials if the common carrier obligation did not require them to do so. More recently, I submitted written testimony in Finance Docket No. 35219, *Union Pacific Railroad Company - Petition for Declaratory Order.* In that proceeding, UP unsuccessfully attempted to convince this Board that it did not have to provide common carrier rates or service to USM for transportation to four destinations.

This verified statement is offered in support of USM's complaint in this proceeding, where USM is challenging the common carrier rates established by UP for the transportation of USM's chlorine to destinations in Eloy and Sauharita, Arizona. This verified statement describes how UP, having so far been unsuccessful in convincing this Board to excuse UP from its legal obligation to transport chlorine, has engaged in a strategy to exploit its market dominance over the transportation of chlorine from USM's Rowley, Utah to its customers in Eloy and Sauharita Arizona and elsewhere to make it prohibitively expensive for USM to market the chlorine produced by its magnesium operations. UP is the only railroad that serves the Rowley plant and deliveries to the above locations only involve UP movements. UP has a monopoly position on these

shipment routes and the common carrier rates currently being charged are unreasonable and predatory. Alternate modes of transportation such as truck are impractical and less safe and the infrastructure to ship other than by rail is unavailable and impractical.

A. Description of US Magnesium, LLC

As stated above, USM is the only surviving magnesium producer in North America. As explained in more detail below, this survival is due in large part to the ability of USM to find buyers of chlorine produced by its operations. USM's operations in Rowley began with the 2002 purchase by USM of the assets of Magcorp and the ongoing magnesium business that Magcorp had established there. USM is involved in the manufacture and supply of magnesium ingot products, magnesium recycling services, chemical co-products and by-products, and energy. Magnesium has a wide variety of applications; it is used in aluminum alloying to make aluminum sheet used for things such as truck bodies, aircraft skin, various aluminum castings, and beverage cans. Magnesium is also necessary for producing titanium, zirconium, beryllium, and uranium. Use of magnesium in the automobile industry reduces the weight of automobiles and, thereby, reduces fuel consumption. Magnesium also has military applications.

B. USM's Chlorine Production and Marketing

Chlorine is a necessary co-product of USM's magnesium manufacturing operations. This is because the feedstock for USM's operations is the vast amount of magnesium chloride present in the Great Salt Lake. USM uses solar energy to remove water using an extensive system of evaporative ponds in order to concentrate raw brine so that the lake's magnesium chloride can be electrolyzed to produce magnesium and chlorine (the Rowley facility also produces calcium chloride, iron chlorides, and

hydrochloric acid). The production ratio of magnesium and chlorine at the Rowley facility is approximately one to one. The volume of chlorine produced by USM in a given year is therefore directly related to the demand for magnesium in the United States and the world, and this demand can vary from year to year. While USM is the only producer of magnesium in North America, USM in general is considered a relatively small shipper of chlorine on UP's system.

Prior to 2001 a significant portion of the chlorine produced by USM's magnesium manufacturing processes was vented into the atmosphere pursuant to permits issued under the Federal Clean Air Act. For example, in 1989 USM's predecessor at Rowley emitted 55,000 tons of chlorine into the atmosphere. The capture of essentially all the chlorine during the magnesium manufacturing process is a relatively recent innovation developed by USM and its predecessors. This innovation was driven in part by lower limits on the chlorine the Rowley facility can emit under its air permits. Accordingly, USM has an operating permit that limits the amount of chlorine emitted to the air to 3,000 tons per year annually, and if the chlorine cannot be collected for sale, we must cut overall production of magnesium and chlorine, scrub the chlorine, or pay monetary penalties. USM sells the chlorine collected through its manufacturing process to end-users for a variety of purposes, including water purification, pharmaceutical manufacturing, and plastics manufacturing. Chlorine is used at water treatment plants across the country, thereby playing a critical role in creation of safe drinking water for

millions of Americans. Additionally, it is estimated that chlorine and its derivatives and products comprise 45% of the United States' gross domestic product.[1]

The new technology installed at the Rowley facility in 2001 led to significant reductions in manpower, energy usage and maintenance expenses, and allowed the chlorine produced by the magnesium operations to be captured and liquefied for sale, thus simultaneously reducing USM's overall emissions and improving our economic model. By 2006 the chlorine emissions from the Rowley facility had been reduced to nearly zero. Therefore, USM engages in an environmentally sensitive method of magnesium production by enabling re-use of the chlorine produced. In 2003, the Utah State Legislature awarded USM a citation recognizing its improvement in the efficiency of the plant while reducing its impact on the environment.

C. USM's Relationship with UP and Recent Actions by UP to Drastically Increase USM's Rates

The chlorine produced by the Rowley facility has been transported to end-users almost exclusively via rail service by UP, since there are no other feasible or cost-effective means to transport the volumes of chlorine the Rowley facility produces. UP has transported USM's chlorine in tank cars supplied to it by USM since 1972. We are a relatively small chlorine shipper on UP's system, but in the last ten years, approximately 3,600 carloads of chlorine (323,000 tons) have been transported by the UP without any incidents or spills. US Magnesium has been awarded the Union Pacific Pinnacle safety award the last three years for safe loading practices and zero non accident releases,

[1] See "benefits of chlorine" at the Chlorine Institute website, http://www.chlorineinstitute.org.

USM is extremely proud of its safety record and believes it has a good working relationship with UP to ensure safe operations into the future.

Historically, relations between the UP and USM have been good, and prior to 2008, we have reached agreements for contract rates after mutual negotiations, that were generally reasonable and fair to USM and we believe generated significant profits for the UP. Beginning with 2008, however, UP has aggressively sought to significantly increase its rates for transporting USM's chlorine. Specifically, in 2007, as the 2007 contract between the parties was set to expire, [

,] nearly double the expiring contract rate for this destination. At that time, I was told by UP personnel that if the law did not require UP to transport USM's chlorine it would not do so. USM could not accept the proposed rate increases proposed by the UP. After negotiations and threats by USM to seek relief from this Board, [

.]

In October, 2008 USM first approached UP about a new contract for chlorine movements to replace the 2008 contract when it expired. At the time USM had forecast its production of magnesium (and a corresponding volume of chlorine) to be about [

.] These were significant increases versus previous years, and this necessitated asking for a number of additional lanes in 2009 in order to ensure all available chlorine could be sold.

UP did not immediately respond to USM's proposal in October, 2008, causing USM to seek an extension of the 2008 contract term, which UP granted. UP eventually responded with a contract proposal on January 5, 2009, and at that time proposed to increase all 2008 rate levels, which were more than 130% (simple average) of the 2007 contract rates, still another 200%. UP continued to state in our discussions and meetings and calls that it no longer wanted to ship chlorine; and that UP was pricing chlorine freight rates to in order to de-market chlorine and end its shipment by railroad. The contract rate proposal from the UP for 2009 was absolutely unacceptable to USM; we considered it unfair, unreasonable and predatory. In the case of the rate for transportation to Eloy, Arizona, the 2009 contract rate of [ ] proposed by UP was 188% of the 2008 rate. The [ ] rate to Sahuarita was 192% of the 2008 rate. Essentially, UP's offer increased the rail transportation rates paid by USM only two years ago in 2007 by a simple average of over 250%, an increase that USM believes was unrelated to any experienced or foreseeable cost increases, but rather entirely for the purpose of trying to de-market the rail transportation of USM's chlorine and/or maximize UP's monopoly profits.

In order to protect our interests, by letter dated January 16, 2009 USM requested that UP provide USM with common carrier rates for the shipment of USM's chlorine, informing UP that if the parties could not reach a negotiated solution "we see a distinct

possibility that US Magnesium will reluctantly decide to seek a rate reasonableness determination from the Surface Transportation Board." Kaplan V.S. Exhibit 1. In response, UP established tariff rates effective March 3, 2009, that were another 10% higher than the 2009 proposed contract rates, thus increasing the rates for transporting USM's chlorine an average of 210% over the 2008 rate levels, and 273% over 2007 levels. In February, 2009, UP filed the aforementioned unsuccessful Petition for Declaratory Order seeking permission from the Board to not ship USM's chlorine to certain destinations located on the United States Gulf Coast.

In the absence of further negotiations by the UP, USM filed this Three Benchmark case to seek reasonable and fair rates from UP for the transportation of chlorine from Rowley, Utah to Eloy and Sahaurita, AZ. USM shipped [ ] railcars of chlorine to its customer in Eloy in 2008, and [ ] rail cars of chlorine to its customer Sahaurita in 2008. While actual volumes of chlorine are hard to predict because they are determined by magnesium production, USM estimates that between 2009 and 2013 it will ship an average of [ ] rail cars per year to Eloy, and an average of [ ] rail cars per year to Sahuarita.

D. Conclusion

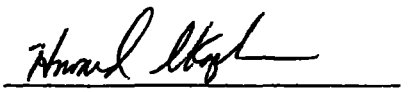
The global economic turndown has led to significantly reduced magnesium demand and therefore, USM has had no choice but to reduce magnesium production, which has also reduced chlorine production for sale. Despite the lower levels of current magnesium production, the market for it is unpredictable enough that production could ramp up on short notice, in which case USM must have reasonable railroad rates in place to the various destinations it sells to. In today's world market for magnesium, eliminating

sales of the by-product chlorine would render the Rowley facility uneconomic, likely forcing the closure of the last remaining producer of magnesium in the United States. USM remains in a very precarious position financially given the current state of the economy and its need for profits to support cash investments to improve production levels, increase productivity and replace aging equipment. Reasonable rail rates for chlorine transportation are required to generate the necessary profitability for USM to carry out these plans. Relief from the rates UP has established for transportation of USM's chlorine from Rowley to Eloy and Sahaurita should be granted, and given the UP's rate setting behavior, which is clearly designed to be punitive and price chlorine transportation so high it does not move on UP, USM also believes the STB should increase the maximum amount of relief USM is entitled to under the applicable rules.

Verification Page

I, Howard I. Kaplan, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed, August 21, 2009.



Howard I. Kaplan

Kaplan V.S. Exhibit 1

[redacted]
US Magnesium LLC 238 North 2200 West Salt Lake City, Utah 84116-2921

Proprietary Privileged and Confidential

January 16, 2009

Bob Worrell
Sr. Assistant Vice President Chemicals
Union Pacific Railroad
1400 Douglas Street
Omaha, NE 68179

Dear Bob:

As we move ahead with our contract negotiations US Magnesium hereby requests Union Pacific (UP) to publish public tariff rates on the following set of UP lanes.[1] As you know, the response should be provided as soon as reasonably possible, as but no later than 10 business days from receipt of this request.

We would like those rates to be available as a pricing authority effective on February 1, 2009. If the contract negotiations do not produce acceptable results, US Magnesium may decide to ship on one or more of these public tariff rates.

STCC: 2812815 Chlorine Gas, Liquefied

From: UT, ROWLEY
To:
AZ, ELOY
AZ, PHOENIX
AZ, SAHUARITA
CA, COLTON
CA, LOS ANGELES
CA, MOJAVE
CA, ONTARIO
CA, PITTSBURG
CA, SACRAMENTO
CA, SAN JOSE
CA, SANTA FE SPRINGS
CA, SAUGUS
CA, STOCKTON
CA, SYLMAR
CA, TORRANCE
CO, DENVER
IA, CAMANCHE
IA, CEDAR RAPIDS
ID, LEWISTON
IL, DUPO
IL, EAST CHICAGO

[1] See CFR Title 49 Part 1300.3 Response to request for establishment of a new rate.

[redacted]
US Magnesium LLC 238 North 2200 West Salt Lake City, Utah 84116-2921

Proprietary Privileged and Confidential

LA, ALLEMANIA
LA, PLAQUEMINE
MO, FESTUS
MO, KANSAS CITY
MO, ST LOUIS
NE, OMAHA
NV, HENDERSON
NV, SPARKS
OK, NOWATA
TX, HOUSTON
TN, MEMPHIS
TX, DALLAS
UT LITTLE MOUNTAIN
UT, SALT LAKE CITY

Many of these lanes already have excessively high rates, a message we have conveyed consistently in our meetings with Union Pacific. Nevertheless, we are continuing to move ahead with our contract negotiations.

The traffic on all of these lanes originates at Rowley, Utah on the Union Pacific Railroad. The US Magnesium rail freight commodity on all of the preceding lanes is Chlorine STCC 2812815.

US Magnesium and UP have reached mutually satisfactory solutions in previous negotiations. We remain open to reasonable solutions and encourage UP to join together with US Magnesium again in developing an acceptable negotiated solution. If such does not occur we see a distinct possibility that US Magnesium will reluctantly decide to seek a rate reasonableness determination from the Surface Transportation Board.

If you have any questions please contact me.

Sincerely,

Howard Kaplan
Vice President

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C. 238 North 2200 West Salt Lake City, UT 84116-2921 Complainant, v. UNION PACIFIC RAILROAD COMPANY 1400 Douglas Street Omaha, NE 68179 Defendant.	)	Docket No. NOR 42114

Verified Statement

of

Kim N. Hillenbrand

August 24th, 2009

PUBLIC VERSION

Table of Contents

PUBLIC VERSION

List of Exhibits

Exhibit	Description
KNH – 1	Statement of Qualification and Experience
KNH – 2	Variable Cost Calculations
KNH – 3	Summary of Maximum of Reasonable Rates (Highly Confidential)
KNH – 4	Rowley to Eloy Comparison Group (Highly Confidential)
KNH – 5	Rowley to Sahaurita Comparison Group (Highly Confidential)
KNH – 6	TIH $R/VC_{>180}$ Benchmark
KNH – 7	TIH $R/VC_{>180}$ Benchmark Adjusted Summary of Maximum of Reasonable Rates (Highly Confidential)
KNH – 8	TIH $R/VC_{>180}$ Benchmark Adjusted Rowley to Eloy Comparison Group (Highly Confidential)
KNH – 9	TIH $R/VC_{>180}$ Benchmark Adjusted Rowley to Sahaurita Comparison Group (Highly Confidential)

I. Introduction

My name is Kim N. Hillenbrand. I am a senior analyst at the economic consulting firm of Snavely King Majoros O'Connor & Bedell, Inc. ("Snavely King"). The firm's business address is 1111 14th Street, N.W., Suite 300, Washington, D.C. 20005. Snavely King, formerly Snavely, King, & Associates, Inc., was founded in 1970 to conduct research on a consulting basis into the rates, revenues, costs, and economic performance of regulated firms and industries. Snavely King is an economic and management consulting company focusing on transportation and utilities. Snavely King has been in business for more than 39 years, serving transportation clients including railroads, shippers and government agencies, in the United States, Canada and Europe. My qualifications and experience can be found in Exhibit___ (KNH-1).

On May 4th, 2009 U.S. Magnesium L.L.C ("USM") filed a rate reasonableness complaint[1] at the Surface Transportation Board ("STB" or "Board") against the Union Pacific Railroad Company ("UP") seeking the establishment of reasonable rates and the payment of reparations for shipments of chlorine from USM's Rowley, Utah facility to the following two (2) destinations:

- Eloy, Arizona ("Eloy Movement")
- Sahuarita, Arizona ("Sahuarita Movement")

USM has elected that the reasonableness of the rates for the issue movements listed above be evaluated using the Three Benchmark Methodology ("3B") described and adopted in STB Ex Parte 646, *Simplified Standards for Rail Rate Cases* (served September 5, 2007) ("*Simplified Standards*").

[1] STB Docket No. 42114, *U.S. Magnesium L.L.C v. Union Pacific Railroad Company*

I have been requested by USM to (1) calculate the Revenue to Variable Cost Ratios ('R/VC") for the issue movements; (2) apply the 3B Methodology to determine the maximum R/VC and rate for each issue movement; and (3) determine, pursuant to *Simplified Standards,* what other relevant factors may be applied to the maximum R/VC and rate.

II. Revenue to Variable Cost Ratios for the Issue Movements

When evaluating the reasonableness of a rate under the Three Benchmark Methodology, the first step is to calculate the R/VCs for the issue movement.

A. The Challenged Rates

UP initially established tariff rates for the issue traffic in UP Tariff 4949, Item 1000, which went into effect on February 15, 2009. On March 20, 2009 UP re-published the issue traffic rates UP Tariff 4949, Item 1000-A without any changes.2 The challenged rates for the Eloy and Sahuarita movements are:

Table 1

Ln	Destination	Rate per Carload [1]	Fuel Surcharge [2]	Total Rate per Carload [3]=[1]+[2]
1.	Eloy	$13,396	$0.00	$13,396
2.	Sahaurita	$10,410	$0.00	$10,410

Source
[1] UP Tariff 4949, Item 1000-A

The rates in UP Tariff 4949, Item 1000 are subject to UP's mileage-based carload fuel surcharge program. During the 2nd Quarter of 2009, UP's fuel surcharge was not in

[2] The current version of UP Tariff 4949 is 1000-C, which UP released on June 19, 2009. No changes were made to the Eloy and Sahuarita rates.

effect. As shown in Table I above, the challenged rate levels for the Eloy and Sahuarita movements are $13,396 and $10,410 per car load, respectively.

B. URCS Phase III Variable Costs

The Surface Transportation Board requires parties to calculate variable costs in rate proceedings using use the STB's Uniform Railroad Costing System ("URCS") without adjustments ("unadjusted URCS"). I therefore used unadjusted URCS to calculate UP's variable costs of providing rail service from Rowley, UT to each destination.[3] In *Major Issues* and *Simplified Standards* the Board mandated that only nine (9) operating inputs for the URCS Phase III program analysis will be allowed when calculating the variable costs for issue traffic. These nine (9) inputs are:

(1) the railroad;
(2) loaded miles (which should include loop track miles);
(3) shipment type (originated and terminated (local), originated and delivered, received and delivered (bridge), received and terminated);
(4) number of freight cars;
(5) tons per car;
(6) commodity;
(7) type of movement (single, multiple car, unit train);
(8) car ownership (railroad or private); and
(9) type of car

The Eloy and Sahuarita movements are transported over the lines owned and/or operated by UP via single line service. I calculated the miles for the issue movements using operating parameters, track charts and timetables provided by UP in its Initial Disclosures and in discovery. The details regarding the nine (9) inputs for the issue movements are shown below:

[3] 49 U.S.C. § 10707(d)(1)(B); Ex Parte 657 (Sub-No.1), *Major Issues in Rail Rate Cases* (Served October 30, 2006) at 60 ("*Major Issues*); *Simplified Standards* at 26.

Table II
URCS Phase III Variable Cost Inputs

URCS Input Item	Eloy	Sahuarita
1. Railroad	Union Pacific (UP)	Union Pacific (UP)
2. Type of Shipment	Originate and Terminate (OT)	Originate and Terminate (OT)
3. Loaded Miles	1325	1260
4. Car Type (URCS Code)	Tank Car, less than 22,000 gallons (URCS Code 15)	Tank Car, less than 22,000 gallons (URCS Code 15)
5. Number of Cars	1	1
6. Car Ownership	Private	Private
7. Commodity Type (STCC)	281 - Industrial Chemicals	281 - Industrial Chemicals
8. Shipment Weight (Tons)	90	90
9. Movement Type	Single	Single

I used the 9 inputs from Table II to compute the URCS Phase III variable costs for each movement. The computer program "Surface Transportation Board's Railroad Cost Program" was used to calculate unadjusted Phase III URCS costs for the issue movements. The "Railroad Cost Program" module within the "Surface Transportation Board's Railroad Cost Program" was used. In STB Docket NOR 42111, *Oklahoma Gas & Electric Company v. Union Pacific Railroad Company* (served July 23, 2009) ("*OG&E*"), the Board cited its current preference for calculating URCS Phase III results using the Railroad Cost Program module, due to its "more accurate approach."[4]

I used 2007 UP URCS unit costs, the most current year available, in the URCS Phase III variable cost calculations for each of the issue movements. The base year 2007 variable costs were then indexed to the first and second quarters of 2009, producing the URCS Phase III variable costs for the issue movements set forth in Table III.

[4] *OG&E at 7*, as discussed in the decision, the STB concluded that, at this time the Rail Cost Program module produces a slightly more accurate result than then Batch Costing module. The Batch Costing module has a rounding off mechanism for mileage input data while the Rail Cost Program module allows for exact user input calculations to a tenth of a mile

Table III Issue Movement Variable Costs		
Quarter	Eloy	Sahuarita
	[1]	[2]
1Q 2009	$2,598	$2,495
2Q 2009	$2,598	$2,495
Source		
[1] & [2] Exhibit___(KNH-1)		

C. Issue Movement R/VC Ratios

Table IV below shows the R/VC ratios for the Eloy and Sahuarita movements for the first and second quarters of 2009:

Table IV Issue Movement R/VC Ratios		
Quarter	Eloy	Sahuarita
1Q 2009	516%	417%
2Q 2009	516%	417%

III. Rate Reasonableness Determination for Issue Movements

In this section I address the application of the 3B Methodology specified in *Simplified Standards* and applied by the Board in other rate cases using the *Simplified Standards*[5] to the issue rates. The 3B Methodology assesses the reasonableness of a challenged rate by comparing the challenged rate's R/VC ratio with three benchmarks that are also expressed as a R/VC ratio. The three benchmarks are R/VC_{COMP}, RSAM,

[5] STB Docket Nos. 42099, 42100, and 42101, *E I DuPont de Nemours and Co v. CSXT Transportation, Inc.*, (all served June 27, 2008).

and $R/VC_{>180}$[6] My application and development of the three benchmarks is described in the following three sections:

A. Development of R/VC_{COMP} Benchmark
B. Application of the RSAM and $R/VC_{>180}$ Benchmarks
C. Calculation of the Upper Boundary and Maximum R/VC Ratios

A. Development of R/VC_{COMP} Benchmark - Selection of Comparison Group

I first developed the R/VC_{COMP} benchmark or comparison groups, one for each issue movement. The purpose of the R/VC_{COMP} benchmark is "to compare the markup being paid by the challenged traffic to the average markup assessed on other potentially captive traffic involving the same of a similar commodity moving similar distances." *Simplified Standards* at 7.

The data for USM's R/VC_{COMP} is derived from comparable movements from STB's unmasked confidential Waybill Sample supplied to the parties in this proceeding by the Board on May 15th, 2009. Pursuant to the *Simplified Standards*, the data used is the most recently available four (4) years. In this case all of the UP unmasked confidential waybill records are from 2004 to 2007. Each year in the Waybill Sample file contains roughly between 171,000 and 182,000 records involving shipments in which the UP participated.

I then applied selection criteria following the Board's guidance in *Simplified Standards*, as applied in STB Docket No. 42100, *E.I DuPont de Nemours and Co. v. CSXT Transportation, Inc.*, (served June 27, 2008) to develop a comparison group with similar movement characteristics to each of the Eloy and Sahaurita movements.

---

[6] *Simplified Standards* at 10 and *Rate Guidelines – Non-Coal Proceedings*, 1 S.T.B. 1011 (1996) ("*Simplified Guidelines*")

Summarized below are the comparability factors I used to develop USM's two comparison groups for the R/VC_{COMP} benchmark to be applied individually to the Eloy and Sahuarita movements, respectively:

1. Car Type – USM shipments of chlorine are transported in railroad tank cars. Accordingly the R/VC_{COMP} group includes only shipments that travel in this same car type.

2. Car Owner – The issue traffic is transported in private owned tank cars. Since use of private cars has a significant impact on transportation costs and rate setting, I have limited the comparison group selection to include only privately owned cars.

3. Removal of Issue Traffic – The issue traffic has been removed from the R/VC_{COMP} group in accordance with the *Simplified Standards*.

4. Single Line Traffic – UP provides single line service for the issue traffic, meaning that both movements originate and terminate on the UP. Accordingly, USM's R/VC_{COMP} group will only include local UP traffic. In *Simplified Standards* the STB has also directed that non-defendant traffic be excluded from the analysis. Rule 11 and rebilled movements are also excluded from the analysis.

5. Cross Border Traffic – Because the issue movements travel within the United States, all cross border movements are excluded from the comparison groups.

6. Traffic with an R/VC>180 – I have limited USM's R/VC_{COMP} groups to movements with an R/VC of 180% or higher in accordance with *Simplified Standards*.

7. Distance – USM's R/VC_{COMP} groups are limited to comparable movements with a loaded mile range of plus or minus 200 miles of the issue movement's actual loaded miles. Each movement's actual loaded miles were developed using the operating parameters, track charts, and timetables provided by UP in its Initial Disclosures and in discovery.[7]

8. Commodity – The issue movements involve the transportation of chlorine, which is classified by the United States Department of Homeland Security as a Toxic by Inhalation ("TIH") commodity. I have included all TIH commodities in USM's comparison group.[8]

[7] STB Docket No. 42100, *E.I DuPont de Nemours and Co. v. CSXT Transportation, Inc.*, (served June 27, 2008) at 8

[8] *Id* at 8-9

Table V below lists the criteria I applied to the confidential waybill sample for the initial selection of the comparison groups for each of the issue movements. The selection factors of the two comparison groups are identical except for the distance ranges.

Table V
Comparison Group Selection Factors

Critera	Waybill Field	Eloy Value	Sahuarita Value
Distance Range	Total Distance divided by 10	1,125 - 1,525	1,060 - 1,460
Tank Car	AAR Equipment Type	First digit = "T"	First digit = "T"
Car Owner	Car Ownership	"P"	"P"
Commodity	STCC	TIH / PIH	TIH / PIH
Local Movement	Origin and Termination Railroad Alpha	"UP"	"UP"
No Interchange	Junction Frequency	"0"	"0"
No Rebill (Rule 11)	Rebill Code	"0"	"0"
R/VC>180	Total Revenue divided by Total Variable Cost	> 180%	> 180%

My application of the selection criteria in Table V to the unmasked confidential Waybill Sample resulted in a the selection of [ ] records or movements for Eloy R/VC_{COMP} group and [ ] records or movements for the Sahuarita R/VC_{COMP} group.

The selection criteria in Table V selects R/VC_{COMP} groups that consist of movements of similar commodities which have many of the same cost characteristics of the issue movements. The majority of the movements in the R/VC_{COMP} groups move under contract rates. This is consistent with general trends in TIH pricing. My analysis of the confidential Waybill Sample revealed that very few TIH movements meeting the selection criteria move under common carrier rates. In fact, to the best of my knowledge, UP Tariff 4949, which only covers rates from USM's Rowley facility, is the only set of common carrier rates currently issued by UP for the transportation of chlorine.

The selection criteria for Rowley, UT to Eloy, AZ and Rowley, UT to Sahuarita, AZ R/VC_{COMP} groups for the issue movements follow the guidelines set forth in Simplified Standards, have been previously accepted by the Board.

B. Application of RSAM and R/VC>180 Benchmarks

The next step in the procedures outlined in Simplified Standards is to apply the "Revenue Shortfall Allocation Method" ("RSAM") and R/VC>180 benchmarks to the R/VC_{COMP} benchmark. The RSAM benchmark is intended to measure the average markup that a railroad would need to collect from all "its potentially captive traffic" to earn adequate revenues.[9] The $R/VC_{>180}$ benchmark measures the average markup that was actually applied by a railroad in its rates for potentially captive traffic. These two benchmarks are used to compute a revenue need adjustment factor for the railroad.[10]

The revenue need adjustment factor is applied to each movement in each of the comparison group by applying the ratio of the four year average of the (RSAM ÷ $R/VC_{>180}$). [11] To develop the revenue need adjustment factor specified in *Simplified Standards* for this proceeding I calculated the four year average of UP's RSAM and $R/VC_{>180}$ from 2004 to 2007 contained in the STB's decision served on May 12, 2009 in Ex Parte No. 689, *Simplified Standards for Rail Rate Cases – 2007 RSAM and $R/VC_{>180}$ Calculations.* This application resulted in a 1.41 adjustment to the R/VC of each movement in both comparison groups, as summarized in Table VII.

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[9] *Simplified Standards* at 10

[10] *Id* at 19. Prior to *Simplified Standards* the RSAM was designed to measure "measures the uniform markup above variable cost that would be needed from every shipper of potentially captive traffic (the >180 traffic group) in order for the carrier to recover all of its URCS fixed costs. RSAM supplies a key component of a simplified rate reasonableness analysis, because it accounts for a railroad's need to earn adequate revenues" and *Simplified Guidelines at 1004, 1027.*

[11] *Simplified Standards* at 20.

Table VI
Union Pacific RSAM and $R/VC_{>180}$ Benchmarks

Year	RSAM	$R/VC_{>180}$	R/VC_{COMP} Adjustment Factor
	[1]	[2]	[3]=[1]/[2]
2004	378%	232%	1.63
2005	379%	229%	1.66
2006	268%	233%	1.15
2007	278%	230%	1.21
4 Year Average	326%	231%	1.41

Source
[1] & [2] Ex Parte No. 689, *Simplified Standards for Rail Rate Cases - 2007 RSAM and R/VC>180 Calculations*, Decided May 12, 2009

C. Calculation of the Upper Boundary and Maximum R/VC Ratios and Rates

To calculate the maximum R/VC for each of the two issue movements following the procedures set forth in *Simplified Standards*, I first adjusted each movement in each of the comparison groups by the 1.41 revenue need adjustment ratio of RSAM ÷ $R/VC_{>180}$ calculated above. Next, I calculated the mean and standard deviation of the R/VC ratios for each adjusted comparison group. Using the mean and standard deviation of each adjusted comparison group I next calculated the 90% confidence interval around the estimate of the mean. This determines the upper boundary level of the mean estimate of each comparison group. The challenged rate is presumed unreasonable if the challenged rate's R/VC ratio is greater than the upper boundary mean of the adjusted comparison group.[12]

[12] *Simplified Standards* at 21.

Table VII show my computations of the maximum reasonable rates and maximum R/VC ratios for USM's Eloy and Sahuarita movements.[13]

Table VII
Maximum Rate and R/VC 1Q 2009

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,598	$2,495
3.	R/VC	516%	417%
4.	Maximum R/VC	310%	302%
5.	Maximum Rate per Carload	$8,062	$7,524
6.	Rate Reduction per Carload	$5,334	$2,886

Source
Ln.1 Table I
Ln.2 Exhibit___(KNH-2)
Ln.3 = Ln.1 ÷ Ln.2
Ln.4 Exhibit___(KNH-3)
Ln.5 = Ln.2 x Ln.4
Ln.6 = Ln.1 - Ln.5

The maximum rates for USM's issue movements are $8,062 per carload for the Rowley to Eloy Movement and $7,524 per carload for the Rowley to Sahuarita Movement.

IV. Other Relevant Factors

My application of the Three Benchmark methodology to the issue movements demonstrates that the challenged rates for both issue movements are presumptively unlawful and the maximum reasonable rates for this transportation should be established at the levels set out in line 5 of Table VII.[14] Under *Simplified Standards*, parties may submit evidence of "other relevant factors" to demonstrate and quantify that a presumed maximum reasonable rate produced by the Three Benchmark analysis should be further

[13] Exhibit___(KNH-4) and Exhibit___(KNH-5).
[14] Id at 21.

adjusted higher or lower.[15] In this section I will quantify how the presumed maximum reasonable rate for both movements should be further adjusted downward to more accurately reflect the disproportionate share of UP's overall revenue need currently paid by TIH commodities.

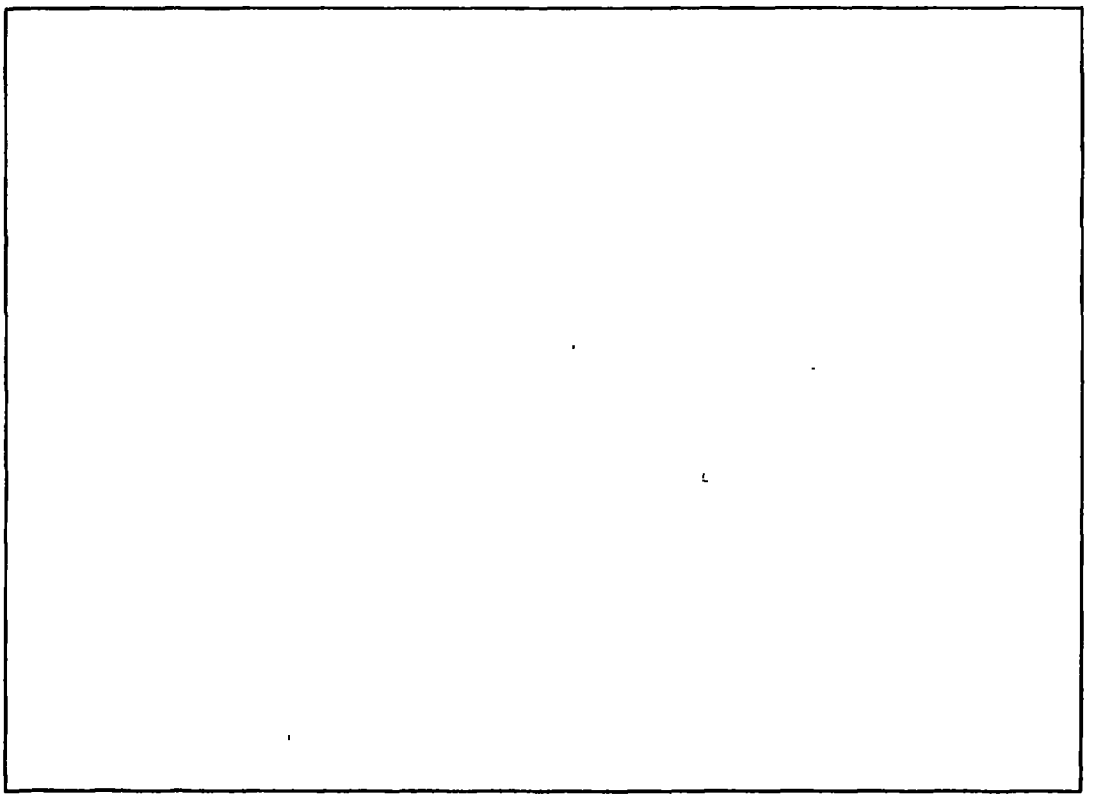
A. Development and Application TIH R/VC>180 Benchmark

The STB R/VC>180 Benchmark is developed using the total revenue earned by the railroad on its potentially captive traffic. The $R/VC_{>180}$ Benchmark includes total revenues earned and the total variable costs earned for all movements with an R/VC ratio equal to or greater than 180%. Thus, the $R/VC_{>180}$ Benchmark develops the average markup over the variable cost earned by UP on all of its potentially captive traffic regardless of commodity. I developed a more specific $R/VC_{>180}$ Benchmark consisting of TIH commodities. In particular, in order to demonstrate this relationship for potentially captive TIH traffic on UP's system. I used the same selection criteria that were used in selecting the R/VC_{COMP} Benchmark in this case with one exception; I removed the mileage criteria in order to capture all UP single line movements of TIH commodities transported by UP in privately owned tank cars. This refined $R/VC_{>180}$ Benchmark focuses on a subset of UP's traffic TIH traffic that includes the R/VC_{COMP} Benchmark for the movements in this case. Since the RSAM ÷ $R/VC_{>180}$ relationship is a revenue need adjustment factor that is applied to the R/VC_{COMP} group,[16] the $R/VC_{>180}$ Benchmark should be adjusted to reflect traffic with similar characteristics, in this case the traffic criteria mentioned above, in order to reflect the principles set forth in the third Long Cannon factor that determines "...whether one commodity is paying an unreasonable

[15] Id at 22.
[16] *Simplified Guidelines* at 1042.

share of the carrier's overall revenues."[17] A comparison of the two benchmarks demonstrates the contribution of specific traffic groups to a carrier's overall revenue requirement.

The Chart I below shows that the UP TIH $R/VC_{>180}$ Benchmark on a year- to - year and four (4) year average basis is higher than UP's $R/VC_{>180}$ Benchmark.



Because the UP TIH $R/VC_{>180}$ Benchmark is higher than the average UP $R/VC_{>180}$ Benchmark, the revenue need adjustment should be lower than the average revenue adjustment to reflect the additional revenue contribution towards UP earning adequate revenues by the UP TIH $R/VC_{>180}$ Benchmark traffic group.

[17] 49 U.S.C. 10701(d)(2)

If the $R/VC_{>180}$ Benchmark is replaced with the TIH $R/VC_{>180}$ Benchmark in my calculations of the maximum reasonable rates for the issue movements, the revenue need adjustment ratio of RSAM ÷ $R/VC_{>180}$ is reduced the ratio from 1.41 to [

] When the revised adjustment ratio is applied to the movements in USM's two R/VC_{COMP} groups, the maximum reasonable rates for the issue movements following the procedures outlined in *Simplified Standard* are reduced as follows: [19]

Table VIII
Maximum Rate and R/VC 1Q 2009 Using TIH $R/VC_{>180}$ Adjustment

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,598	$2,495
3.	R/VC	516%	417%
4.	Maximum R/VC	[	]
5.	Maximum Rate per Carload	[	]
6.	Rate Reduction per Carload	[	]

Source
Ln.1 Table I
Ln.2 Exhibit___(KNH-2)
Ln.3 = Ln.1 - Ln.2
Ln.4 Exhibit___(KNH-7)
Ln.5 = Ln.2 x Ln.4
Ln.6 = Ln.1 - Ln.5

The results of my calculation using the specific $R/VC_{>180}$ Benchmark for TIH commodities are in Table VIII above. The maximum reasonable rate using the TIH R/VC>180 Benchmark commodities for the Rowley, UT to Eloy movement is [ ] and the maximum reasonable rate for the Rowley to Sahuarita movement is [ ].

[18] Exhibit___(KNH-6)
[19] Exhibit___(KNH-8) and Exhibit___(KNH-9)

V. Maximum Reasonable Rate – Conclusion of the Analysis

I conclude that the rates charged by the UP are unreasonable under the application of the Three Benchmark methodology as described under *Simplified Standards*. Table IX below summarizes the maximum rate and R/VC calculations in this statement.

Table IX
Maximum Rate and R/VC Calculations 1Q 2009

	Unadjusted Benchmarks		Adjusted Benchmarks	
Destination	Rate	R/VC	Rate	R/VC
	[1]	[2]	[3]	[4]
Eloy	$8,062	310%	[	]
Sahuarita	$7,524	302%	[	]

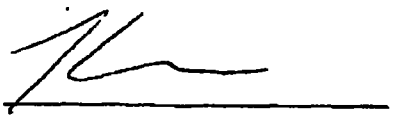
Source
[1] & [2] Table VII
[3] & [4] Table VIII

The STB should prescribe maximum reasonable rates for the Eloy movement of [ ] per carload and [ ] per carload for the Sahuarita movement.

Verification

I declare under penalty of perjury that the foregoing is true and correct. I further certify that I am qualified and authorized to sponsor and file this testimony.

Executed on August 24, 2009



Kim N. Hillenbrand

Kim Hillenbrand

Experience

Snavely King Majoros O'Connor & Bedell
Washington, DC

Senior Analyst (2003 to Present)

Mr. Hillenbrand provides analytical support to SK clients and principals. His responsibilities include economics and cost modeling, operations simulation, financial analysis and reporting, database management and research.

Mr. Hillenbrand's work has primarily been in SK's Transportation group. His projects have included extensive cost and revenue analyses of rail freight logistics, along with preparation of databases for use in rate negotiations with railroads. He has conducted benchmark and market analysis of rail transportation for over 50 different companies.

Mr. Hillenbrand has also evaluated litigation options involving many of the STB rate reasonableness methodologies. He has performed rail feasibility studies for a coal fired utility plant; analyzed railroad abandonment filings; developed cost of capital and return on investment analyses; performed fuel surcharge analyses in both the trucking and rail industries. Mr. Hillenbrand has prepared action plans and presentations for clients on projects including merger analyses, plant site locations, and logistics issues. Additionally, he conducts research in the chemical, petroleum and transportation industries.

Mr. Hillenbrand has assisted in the preparation of client presentations and has prepared testimony for submission to the Surface Transportation Board and State Courts. For a state court proceeding he developed a cost model simulating costs of movements of Medicaid service vans, which was key to the successful outcome in the case.

His telecommunications and public utility experience includes preparation of complex regulatory reports for submission to state and federal regulatory agencies. Mr. Hillenbrand also supports other company witnesses and prepares exhibits for use in the depreciation aspects of regulatory proceedings. These exhibits range from a comparison of depreciation reserves for various accounts to the generation of life curves using in-house developed software, and development of cost of removal estimates. In addition, Mr. Hillenbrand has assisted in preparing testimony involving issues including rate of return, rate design, and cost allocation studies. For a major government agency, Mr. Hillenbrand led a review and development of recommendations resulting in a 20 percent reduction in costs for wireless devices.

Acsys, Inc (2002-2003)
Law Resources (2001-2003)
Washington DC

Mr. Hillenbrand provided short and long term contract work for law, financial, and real-estate firms. Mr. Hillenbrand assisted in the migration of a client's patent and trademark portfolio from in house counsel outside counsel. Mr. Hillenbrand managed the distribution of incoming documents including EEO and FCC filings from clients and assisted in all aspects of the firms broadcasting, media, and satellite practices. Mr. Hillenbrand coordinated a 750,000 page document production and privilege log for a Department of Justice antitrust filling. He also compiled and managed privilege logs and prepared document productions on behalf of clients for SEC investigations. Mr. Hillenbrand conducted first review of client documents for SEC and Congressional investigations.

He assisted state security regulators in the first settlement between New York State and Merrill Lynch regarding conflict of interest between their research groups and investment banking groups. Mr. Hillenbrand conducted verification and complaint checks of stockbrokers and Certified Financial Advisors for investors and answered questions regarding the Series 6 and 63 Exams.

RVC (formerly Reuters Venture Capital)
London, England *(2000)*

Analyst, Intern
Mr. Hillenbrand assisted on a survey of Asia venture capital markets in preparation for future venture capital and fund of fund investments in the region. The survey included analysis of sources of capital, major investors, and destinations of capital in Asia.

Education

Connecticut College, 2001
B A. Economics & International Relations

Georgetown University, Summer 1999
Course Work

Citizenship

United States
United Kingdom

Kim Hillenbrand

Professional Organizations

Association of Transportation Law Professionals
Transportation Research Forum

Testimony and Expert Reports

Surface Transportation Board

April 27, 2006	Ex Parte 661, Rail Fuel Surcharges
May 1, 2006	Ex Parte 657 (Sub-No 1), Major Issues in Rail Rate Cases
October 2, 2006	Ex Parte 661, Rail Fuel Surcharges
October 24, 2006	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
November 22, 2006	NOR 42098, Williams Olefins LLC v Grand Trunk Corporation
November 30, 2006	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
January 11, 2007	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
February 26, 2007	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
April 2, 2007	Ex Parte 661 (Sub-No.1), Rail Fuel Surcharges

USM Variable Cost Calculations

Origin	Rowley, UT
Destination	Eloy, AZ

Cost Item	2007 URCS Phase III Costs	1q 2009 Index Factor	1q 2009 Cost	2q 2009 Index Factor	2q 2009 Cost
	[1]	[2]	[3]=[1]x[2]	[4]	[5]=[1]x[4]
Variable Cost	$2,156.44	0 9874	$2,129.30	0.9873	$2,129.11
Loss & Damage	$1.46	0.9874	$1.44	0 9873	$1.44
Make Whole Adjustment	$473.33	0.9874	$467.37	0.9873	$467.33
Total Variable Cost	$2,631.23	0.9874	$2,598.11	0.9873	$2,597.89

Source
[1] "Eloy_URCS Phase III_Output pdf"
[2] "UP_2007 to 1Q2009_IE3 Index.xls"
[4] "UP_2007 to 2Q2009_IE3 Index.xls"

URCS Phase III Inputs

URCS Input Item	Input	Source
1. Railroad	Union Pacific (UP)	USM, see "Eloy_Waybills.pdf"
2. Type of Shipment	Originate and Terminate (OT)	USM, see "Eloy_Waybills.pdf"
3. Loaded Miles	1325	WP "Eloy_Miles.xls"
4. Car Type (URCS Code)	Tank Car, less than 22,000 gallons (URCS Code 15)	USM, see "Eloy_Waybills.pdf"
5. Number of Cars	1	USM, see "Eloy_Waybills.pdf"
6. Car Ownership	Private	USM, see "Eloy_Waybills.pdf"
7. Commodity Type (STCC)	281 - Industrial Chemicals	USM, see "Eloy_Waybills.pdf"
8. Shipment Weight (Tons)	90	USM, see "Eloy_Waybills.pdf"
9. Movement Type	Single	USM, see "Eloy_Waybills.pdf"

USM Variable Cost Calculations

Origin	Rowley, UT
Destination	Sahuarita, AZ

Cost Item	2007 URCS Phase III Costs	1q 2009 Index Factor	1q 2009 Cost	2q 2009 Index Factor	2q 2009 Cost
	[1]	[2]	[3]=[1]x[2]	[4]	[5]=[1]x[4]
Variable Cost	$2,063.59	0.9874	$2,037.62	0.9873	$2,037.44
Loss & Damage	$1.46	0.9874	$1.44	0.9873	$1.44
Make Whole Adjustment	$462.23	0.9874	$456.41	0.9873	$456.37
Total Variable Cost	$2,527.28	0.9874	$2,495.47	0.9873	$2,495.26

Source
[1] "Sahuarita_URCS Phase III Output.pdf"
[2] "UP_2007 to 1Q2009_IE3 Index.xls"
[4] "UP_2007 to 2Q2009_IE3 Index.xls

URCS Phase III Inputs

URCS Input Item	Input	Source
1. Railroad	Union Pacific (UP)	USM, see "Sahuarita_Waybills.pdf"
2. Type of Shipment	Originate and Terminate (OT)	USM, see "Sahuarita_Waybills.pdf"
3. Loaded Miles	1260	WP "Sahuarita_Miles.xls"
4. Car Type (URCS Code)	Tank Car, less than 22,000 gallons (URCS Code 15)	USM, see "Sahuarita_Waybills.pdf"
5. Number of Cars	1	USM, see "Sahuarita_Waybills.pdf"
6. Car Ownership	Private	USM, see "Sahuarita_Waybills.pdf"
7. Commodity Type (STCC)	281 - Industrial Chemicals	USM, see "Sahuarita_Waybills.pdf"
8. Shipment Weight (Tons)	90	USM, see "Sahuarita_Waybills.pdf"
9. Movement Type	Single	USM, see "Sahuarita_Waybills.pdf"

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-3) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-4) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-5) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-6) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-7) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-8) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(KNH-9) REDACTED

PUBLIC VERSION

BEFORE THE

SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C. 238 North 2200 West Salt Lake City, UT 84116-2921 Complainant, v. UNION PACIFIC RAILROAD COMPANY 1400 Douglas Street Omaha, NE 68179 Defendant.	)	Docket No. NOR 42114

Verified Statement

of

Tom O'Connor

I. Introduction

My name is Tom O'Connor; I am Vice President of Snavely King Majoros O'Connor & Bedell, Inc. ("Snavely King" or "SK"). Snavely King is an economic and management consulting company with offices located at 1111 14th Street NW, Suite 300, Washington DC 20005. Throughout Snavely King's 39 year history our practice has focused on transportation, telecom and public utility industries. A statement of my qualifications and relevant experience is included in Exhibit___(TOC-1).

US Magnesium, LLC ("USM") has filed a rate complaint with the Surface Transportation Board ("STB" or "the Board") prompted by a rate dispute involving USM and the Union Pacific Railroad Company ("Union Pacific" or "UP"). US Magnesium in that complaint has requested that the STB prescribe reasonable rates and award reparations, plus interest, to the extent that US Magnesium has paid common carrier rates in excess of a reasonable maximum for the transportation of chlorine (Standard Transportation Commodity Code or STCC 2812821) for the following issue movements:

- Rowley, Utah to Eloy, Arizona ("Eloy" movement)
- Rowley, Utah to Sahuarita, Arizona ("Sahuarita" movement)

USM has elected to apply the Three-Benchmark approach to define reasonable rail rates in this proceeding. The Three-Benchmark approach was adopted by the STB pursuant to 49 U.S.C. §10701(d)(3), in Ex Parte No. 646 (Sub-No.1), *Simplified Standards for Rail Rate Cases* (served September 5, 2007) ("*Simplified Standards*").

II. Summary of Written Testimony

I have been asked by USM to provide written testimony on the following issues related to the complaint:

A. UP's TIH "De-marketing" Strategy

B. How the De-marketing Strategy Can Manipulate the Three Bench Mark Rules

C. Application of the strategy by UP to the rates at issue in this proceeding

D. Quantification of the increase in the damages limit for Three Benchmark cases contained in Simplified Standards justified by this behavior

UP and the Class I railroads have in recent years publicly stated their objections to continuing to transport TIH commodities. The reasons cited by UP and other railroads tend to focus on the possibility of increased costs; risks and potential liabilities. I have shown in prior testimony that higher casualties, insurance and loss and damage costs are not borne out in the record.[1] Nor has UP presented evidence that its pricing is shaped by cost increases associated with the transportation of chlorine in this proceeding. To the contrary, the UP documents produced in discovery in this proceeding show that UP has adopted a chlorine pricing strategy that is unrestrained by consideration of cost.

Materials produced in discovery by UP in this proceeding reveal a pricing policy in which UP targets individual shippers and applies UP's monopolist or duopolistic economic power to achieve its corporate goals. [

]. The combined effect of the UP policies and the pricing practices

---

[1] See Verified Statement of Tom O'Connor submitted on behalf of the Chlorine Institute in STB Ex Parte 677 (Sub-No. 1) *Common Carrier Obligations of Railroads-Transportation of Hazardous Materials*. Rather than increasing, the casualties, insurance, and loss and damage claims cost reported by the four major US Class I railroads actually declined during the 2003-2007 period.

based on those UP policies is to dramatically increase the net revenue produced for UP by its chlorine and other TIH shipments.

This "de-marketing" pricing policy can have a significant adverse impact on the Board's Three Benchmark rate rules in several ways. In the short term, setting rates at levels designed to be so high as to discourage the traffic from moving at all means that if rate relief is obtained it can cause the Three Benchmark relief cap to be exhausted before the five year period, thus forcing a whole category of shippers to forego the Three Benchmark Methodology to test the reasonableness of their rates. Specifically, the UP pricing policy disadvantages USM and other rail shippers of chlorine. Exhibit___(TOC-2), attached to my verified statement shows the extensive beneficial impact of chlorine on the economy and the quality of modern life.

Over the longer term, if all or most chlorine and TIH rail rates are ratcheted upwards based on a uniform policy of de-marketing, then the comparison groups used in the STB's *Simplified Standards* proceedings will become uniformly high. Over time they become progressively higher, rapidly depleting and ultimately foreclosing the rate relief available under the Three Benchmark Methodology. Thus, the process contains inherent potential for railroads to attempt unilaterally to create a "no win" scenario by consistently setting the requested tariff rates at inordinately high levels. This UP pricing strategy was applied to USM in response to its request for common carrier rates to Eloy, Sahuarita, and other destinations served by UP.

The Board should raise the damages cap for Three Benchmark cases in this proceeding. I recommend raising the cap for this proceeding from $1 million to $2 million based on analysis of the rates and projected volumes at issue.

III. Testimony on Specific Issues

A. Details of UP's Pricing Strategy

In the following analysis I address documents produced by UP in discovery in this proceeding which bear on its TIH pricing strategy. Excerpts from some of these documents are included in the body of this verified statement. The referenced documents are included in the attached Exhibits and Electronic Workpapers filed with Complainants Opening Evidence. In my view, these documents outline a clear and consistent TIH pricing strategy that can be summarized as follows: UP would prefer not to transport chlorine and other TIH commodities at all; but to the extent it must pursuant to its common carrier obligation, [

]

Documents produced in discovery in this case, such as those included in Exhibit_(TOC-4) show that UP pricing officers [

]. Over the past four years, this strategy has resulted in UP hauling less chlorine and other TIH commodities, but significantly increasing the revenue contributed by these movements. [

].

In some cases pursuit of the UP pricing strategy meant accelerating the rate increases for some shippers. The typical target of such accelerated rates would be a shipper in the position USM occupied in 2004 in Workpaper UP-USM3B-0001551. Other chlorine producers with whom USM competed in some markets were above USM in profitability as measured by [ ]. To shrink or eliminate that gap, UP could be expected to increase the pressure on USM to take larger and faster rate increases.

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[2] Source: UP 9 month Review March 07-October 07 Chlorine destined to MO, NE & TX See Exhibit___(TOC-3)

[3] Source: Workpaper UP-USMAG3B-0001551

[

].

The rationale offered by the UP pricing officers is summarized in a series of UP Team Excel Work sheets collected at Workpaper UP-USMAG3B-0043684 covering individual chemical shippers. In my view, UP was apparently neutral as to whether a given supplier could [ ]. None of the documents produced by UP indicate to me that UP's pricing policy was being driven by fears of liability, insurance costs, or other costs associated with the transportation of chlorine. As illustrated on [

].

In summary, UP adopted a pricing strategy that called for significantly ramping up chlorine and TIH commodity rates to maximize profits, along with and nominally justified by a de-marketing strategy. This has resulted in UP transporting less TIH commodities but increasing the revenues received from this general traffic group.

---

[4] [

].

B. How the UP Pricing Strategy Manipulates the Three Benchmark Methodology

The effect of UP's TIH pricing policy is to distort the Three Benchmark Methodology and to potentially diminish its effectiveness as a rate reasonableness test for TIH rail rates. I see the opening to game the system as a flaw in the process the Board perhaps did not anticipate. Specifically, in the short term, a "de-marketing" pricing policy such as that adopted by UP that sets rates at levels designed to be so high as to discourage the traffic from moving means that when rate relief is obtained, the Three Benchmark damage limit may be exhausted before the five year period.

Longer term, if all or most chlorine and TIH rates are ratcheted upwards based on a uniform de-marketing pricing policy, then the comparison movements used in a Three Benchmark case become uniformly high, ultimately foreclosing TIH shippers from the rate relief available under the Three Benchmark Standard. Thus the process contains inherent potential for railroads to attempt unilaterally to create a "no win" scenario by consistently setting the requested tariff rates at inordinately high levels.

Such a railroad strategy is apt for application to a segment of rail traffic meeting the following conditions:

- Relatively limited volumes
- Relatively high rated traffic
- Traffic perceived to be high risk
- Traffic which railroad experience shows is unlikely to cause widespread or long lasting adverse impacts on the railroads

Chlorine meets these prerequisites. This makes chlorine an apt candidate for applying a pricing strategy which both increases the railroad profit levels and drains away the effectiveness of the Three Benchmark rate reasonableness process. The Board can

and should control and prevent such abuses by exercising its discretion to raise the damage limits in particular cases.

C. Application of UP's Pricing Strategy to the Rates at Issue in This Proceeding

UP first attempted to implement its TIH pricing strategy with USM in late 2007, when it responded to USM's request to negotiate 2008 contract rates with a proposed across-the-board increase to the [

] UP revisited its pricing strategy upon the expiration of the 2008 contract. As shown in Exhibit___(TOC-5),[5] whereas UP backed off increasing the rates to the [ ] in 2008 due to [

] UP showed no such concern a year later. Indeed, UP concluded that [

]

D. Quantification of the Increase in the Damages Limit for Three Benchmark Cases contained in *Simplified Standards* Justified by UP's behavior

From UP's perspective, the proposed high USM rates would [

---

[5] See Exhibit___(TOC-5) which contains Charts from UP's January 5, 2009 UP power point slide discussing US Magnesium.

]. To correct or compensate for this unilateral "management" of the chlorine rates as applied to USM, which impedes the effectiveness and distorts the results of the Three Benchmark process the STB should increase the relief cap for USM. At Eloy specifically, UP has never provided any cost or operational justification to USM for the $2986 per car differential between that rate and Sahuarita, located less than 70 miles away. Under *Simplified Standards*, the maximum rate relief under the Three Benchmark approach is capped at $1 million per case over a 5 year period or until the relief available has been exhausted. The relief is the difference between the challenged rate and the maximum lawful rate multiplied by volume. The relief sought for the five year period begins on March 3, 2009. The data presented in this statement shows that the maximum value of the case should be increased significantly to reflect the effects of the UP pricing doctrine which has been applied by UP to the disadvantage of USM and other similarly situated shippers.

Based on the facts in this proceeding, the rate relief cap should be adjusted. As shown on Exhibit___(TOC-6) I believe that the rate relief should be increased to $2.0 million under the facts and circumstances of this case.

IV. Conclusion

The data presented in this statement and the remainder of USM's Opening Evidence demonstrates that the UP rates at issue in this proceeding are far beyond a reasonable level and that this increase is the result of a concerted management policy practiced by UP to the disadvantage of USM and a wide range and large number of shippers similarly situated.

The data presented in this statement and the remainder of USM's Opening Evidence demonstrate that the limit on relief should be increased to $2.0 million in light of the pricing practices of UP.

Verification

I declare under penalty of perjury that the foregoing is true and correct. I further certify that I am qualified and authorized to sponsor and file this testimony.

Executed on August 24, 2009

Tom O'Connor

Tom O'Connor

Capabilities and Experience of

Tom O'Connor

Snavely King Majoros O'Connor & Bedell

1111 14th St. NW

Washington DC

20005

Experience

Snavely King Majoros O'Connor & Bedell, Inc., Washington, DC
- **Vice President (1988-Present)**

Mr. O'Connor has more than thirty years experience in business and economic analysis. His experience includes key and increasingly responsible management and policy positions with government agencies and private industry.

Mr. O'Connor has authored a series of guidelines on transportation negotiations and contracting and has conducted transportation negotiations and contracting seminars for a wide range of clients. Mr. O'Connor has also designed and helped lead transportation contract negotiations resulting in tens of millions in cost savings.

Mr. O'Connor has also appeared as an expert witness on merger analyses, Antitrust cases, damages cases. He has also appeared as an expert witness in rate litigation, achieving millions of dollars in savings for the client. He has served many clients as an expert advisor on the Rail Cost Adjustment Factor (RCAF).

He has also created and managed numerous computerized management and regulatory systems to address complex problems and is a widely recognized expert on costing and economics. He has appeared as an expert on the design and application of ICC-STB regulations. He also developed the most widely used line economic analysis system in the US rail industry; the United States Railway Association Light Density Line Analysis system.

Mr. O'Connor has also conducted analyses of tug and barge operations, both inland and off shore, for governmental and private sector clients.

For the Government of Canada Mr. O'Connor has conducted analyses used to shape policy for freight transportation.

For the U.S. Government, Mr. O'Connor has conducted analyses used to shape Freight and Passenger Transport Policy, including in depth analyses of rail freight and Amtrak.

For the Government of Bulgaria, in the Balkans, he developed the Master Plan for Management Information Systems, including telecom and computer facilities designed to operate, measure, manage and monitor both rail freight and rail passenger operations of the Bulgarian State Railways, in Bulgaria and the Balkan Peninsula.

Mr. O'Connor has also developed a truck loading guide for the Brick Industry Association and has appeared as an expert witness on behalf of highway transportation providers in Indiana. Mr. O'Connor developed and applied the MicroTOCS truck load costing model, the MicroLTCS Less than Truckload (LTL) truck costing model on behalf of a wide range of clients.

Mr. O'Connor has analyzed more than 45 rail merger scenarios and cases. He has provided expert testimony before state and federal courts and commissions in the U.S. and Canada on economic and policy issues. He has also testified as an expert on computerized transportation analytical systems, rail operations, anti trust issues and transportation economics and costing. Mr. O'Connor has served as an impartial and expert monitor of data and processes at issue in litigation on transportation.

Mr. O'Connor has also conducted management audits, focused on identifying the cause and effect relationships underlying claimed cost incidence. The management audits were directed toward testing the cost basis of claims asserted by major railroads.

Mr. O'Connor also has experience in telecoms spanning the period since 1995. During this period, on a succession of government and commercial projects, Mr. O'Connor directed and participated in the review, design and operation of telecoms systems.

He also designed and developed the business and operations plan for an Eastern European telecoms startup company, BDZCOM. Mr. O'Connor designed and presented the plan and conducted liaison with international commercial, banking and government interests in the United States and Europe.

DNS Associates Inc., Washington, DC

- **Vice President (1982 - 1988)**

Mr. O'Connor directed and participated in numerous projects including merger analyses, transportation infrastructure analyses, plant and network rationalization and feasibility studies.

He designed and implemented mainframe and microcomputerized systems for analyzing rail, truck and barge logistics. The computerized cost systems Mr. O'Connor created are in widespread use throughout the United States and Canada.

Mr. O'Connor also advised the U.S. Rail Accounting Principles Board (RAPB) on the costing aspects of regulatory reform policies. The RAPB mission included advising the ICC as to the inclusion of productivity in the RCAF.

He provided expert testimony on coal rates, computerized data bases and cost systems and rail cost issues before the Interstate Commerce Commission.

Association of American Railroads, Washington, DC

- **Assistant Vice President, Economics (1979 - 1982)**

Managing a large staff of professionals, Mr. O'Connor designed and managed major economic analysis projects. He helped formulate industry economic policy positions culminating in the Staggers Rail Act of 1980. He submitted expert testimony on behalf of the railroad industry in numerous cases before the Interstate Commerce Commission and state regulatory commissions. He also appeared regularly in national forums on economic issues.

Mr. O'Connor directed the most significant computerized industry Costing System project in 40 years, URCS, the cost system now used by all major US railroads. Mr. O'Connor's staff was responsible for development of the Rail Cost Adjustment Factor (RCAF). He also conducted industry seminars on URCS and related economic issues.

Mr. O'Connor also testified before the Interstate Commerce Commission on the design and application of the pathbreaking URCS rail cost system since adopted by the Commission and the rail industry.

He also directed development and installation of a commercial computerized economic and market analysis system now used by virtually all major US railroads.

Consolidated Rail Corporation, PA

- **Assistant Director, Cost & Economics (1977 - 1979)**

Managing a staff of about 30 professionals, Mr. O'Connor was responsible for all Conrail management and regulatory cost analyses in both freight and passenger areas. He testified before the ICC on the development of rail line subsidy standards now widely used in the US railroad industry.

He also finalized the design, installed and managed Contribution Simulator and Calculator (COSAC), a computerized internal management economic analysis system at Conrail. The COSAC system uses specific management accounting data to develop economic costs. COSAC replaced earlier systems and was used to guide virtually all transportation management decisions, including competitive market initiatives, consolidations, line abandonments and service discontinuance.

Mr. O'Connor also participated in cost allocation negotiations between Amtrak and Conrail on cost sharing of joint facilities on the North East corridor. He initiated and directed profit maximization and plant rationalization programs.

He also designed and implemented computerization and improvement of a wide range of economic and cost analysis systems used to manage and turn around this multi-billion dollar corporation.

R.L. Banks & Associates Inc., Washington, DC

- **Consultant (1976 - 1977)**

Mr. O'Connor conducted and directed numerous transportation- related projects in the U.S. and Canada ranging from national logistics analyses to site-specific studies. He specialized in costing systems and appeared as an expert witness on such systems in a precedent setting proceeding before a Canadian Crown Commission.

U.S. Railway Association, Washington, DC

- **Manager, Local Rail Service Planning (1974 - 1976)**

In a project of unprecedented scope and historic impact, Mr. O'Connor developed, computerized, and implemented the light density lines cost analysis system, which defined Conrail. This system was used to reach asset disposition and line service decisions for thousands of miles of railroad. He served as liaison with congressional staffs and shipper groups, as well as federal, state, and local governments, and planning agencies. The system he created was a major element in the design and implementation of the streamlined Midwest-Northeast regional rail system. Mr. OConnor subsequently appeared as an expert witness to present and defend the operation of the USRA costing system.

Interstate Commerce Commission,

- **Economist, Washington, DC (1973-1974)**

Mr. O'Connor served as a staff economist and authored a report analyzing industry investment patterns and ICC regulatory policy, including ICC use of cost evidence.

❑ *Education*

- University of Massachusetts, Amherst, B.A. Economics
- University of Wisconsin, Graduate Course Work, Economics
- University of Delaware, Graduate Course Work, Business Management
- The American University, Graduate Course Work, Computer Science

❑ *Professional Organizations*

- Transportation Research Board
  - Past Chairman of the Transportation Regulation Committee
- Transportation Research Forum
  - Past President of the Cost Analysis Chapter
- National Defense Transportation Association
  - Past Member of Board of Directors, National Capital Chapter

❑ ***Academic honors***

- Phi Kappa Phi academic honors society
- Phi Beta Kappa academic honors society

❑ ***Military***

- U.S. Army; Sergeant, Combat Engineers

❑ ***Security Clearance***

- Secret

Tom O'Connor Testimony in Federal Regulatory Cases

❑ The comparative merits of the Interstate Commerce Commission's Uniform Rail Costing System (URCS) and Cost Center Accounting submitted to the ICC on behalf of the US Railroad industry in February 1980 in Docket No. 37203.

❑ The economics and computer technology of the Light Density Line Methodology used to define Conrail, submitted to USRA before a special hearing in 1980.

❑ Computerized transportation database design and use. Verified statement was submitted to ICC on behalf of the US Railroad industry in Nov 1980 in Ex Parte No. 385.

❑ The comparative merits of two regulatory rail-costing systems, URCS and the predecessor rail costing system, Rail Form A, submitted to the ICC on behalf of the US Railroad industry in March 1981, in Ex Parte 399.

❑ Testimony on the Preliminary 1979 Rail Cost Study as released by the ICC, calling for adopting and improving URCS. This was submitted to the ICC on behalf of the US Railroad industry in Docket No. 37203 in February 1982.

❑ Rail costing using Rail Form a costs applied to service units generated by a computerized rail network model. This verified statement was submitted to the ICC on behalf of a shipper located in Nevada in July 1985 in ICC Docket Nos. 37809 and 37815S.

❑ Rail costing, also using Rail Form A costs applied to service units generated by computerized network model. This verified statement was submitted to ICC on behalf of a shipper located in Nevada in November, 1986 in Docket No. 37809, 37815S.

- Stand Alone Rail Costing, for use in rate reasonableness, using service units developed with a series of computerized network model. This verified statement was submitted to the ICC on behalf of the Association of American Railroads in September, 1988 in Docket No. 38239S

- Rail merger conditions, developed using rail costs and a computerized network model. This verified statement was submitted to the ICC in March 1994 in Finance Docket No. 21215 (Sub. No. 5)

- The effects of computerized methods on rail operations and costs. This verified statement was submitted to the ICC on behalf of Coleto Creek Utility in July 1994 in Docket No. 41242.

- The cost of rail coal transportation using URCS costs and A Stand Alone Network. This verified statement was submitted to the ICC on behalf of West Texas Utilities in April 1995 in Docket No. 41191.

- Further testimony on the cost of rail coal transportation using URCS costs and a Stand Alone Network. This verified statement was submitted to the ICC on behalf of West Texas Utilities in July 1995 in Docket No. 41191.

- Oral Argument on the effects of the BN-SF merger on rail costs and service presented before the full Commission in August 1995 on behalf of Universal Forest Products in Finance Docket No. 32549.

- The effects of the UP-SP merger on costs, infrastructure and operations. Verified statement was submitted to ICC on Behalf of Kansas City Southern Railroad in March 1996 in Finance Docket No. 32760.

- Competitive truck transportation market. Joint Verified Statement with James Wells was submitted to Surface Transportation Board (STB) on behalf of TJ MAXX on June 22, 1998 in Docket No. 41192

- The investment plans of UP-SP to remedy effects of the UP-SP merger. Verified statement was submitted to STB on Behalf of Kansas City Southern Railroad in June, 1998 in Finance Docket No. 32760 UP-SP Merger Oversight Proceeding

- The Arkansas and Missouri Railroad Request For Discontinuance Waiver Filed on Behalf of Kansas City Southern Railroad. Verified statement was submitted to Surface Transportation Board (STB) in November1998 in Finance Docket No. 32670.

- Further testimony on the competitive truck transportation market. Joint Verified Statement with James Wells was submitted to Surface Transportation Board (STB) on behalf of TJMAXX in January, 1999 in Docket No. 41192

- Rail Merger Guidelines to develop new and improved merger analysis processes. Verified statements were submitted to Surface Transportation Board (STB) on behalf of OxyChem, Oxy Vinyls, BASF and Williams Energy Services in May 2000 in Ex Parte 582.

- Reply Testimony on Rail Merger Guidelines to develop new and improved merger analysis processes. Reply Verified statements were submitted to Surface Transportation Board (STB) on behalf of OxyChem, Oxy Vinyls, BASF and Williams Energy Services in June 2000 in Ex Parte 582.

- Testimony on STB Rate Guidelines in small Shipment Cases. Verified statement was submitted to Surface Transportation Board (STB) on behalf of SK clients in STB Ex Parte 646 in June 2004.

- Oral Testimony on STB Rate Guidelines in small Shipment Cases. Oral Testimony was presented to the full Surface Transportation Board to Surface Transportation Board (STB) on behalf of SK clients in STB Ex Parte 646 in July 2004.

- Testimony on STB Stand Alone Costs focusing on alternatives. Comments submitted to Surface Transportation Board (STB) on behalf of SK in STB Ex Parte 657 in April 2005.

- Oral Testimony on STB Stand Alone Costs focusing on alternatives. Presented to Surface Transportation Board (STB) on behalf of SK in STB Ex Parte 657 in April 2005.

- Oral and Written Testimony on the first ever STB Small Shipment Rate Case. Comments submitted to Surface Transportation Board (STB) on behalf of BP Amoco in STB Docket NOR 42093 in May-June 2005. The case was resolved successfully through mediation.

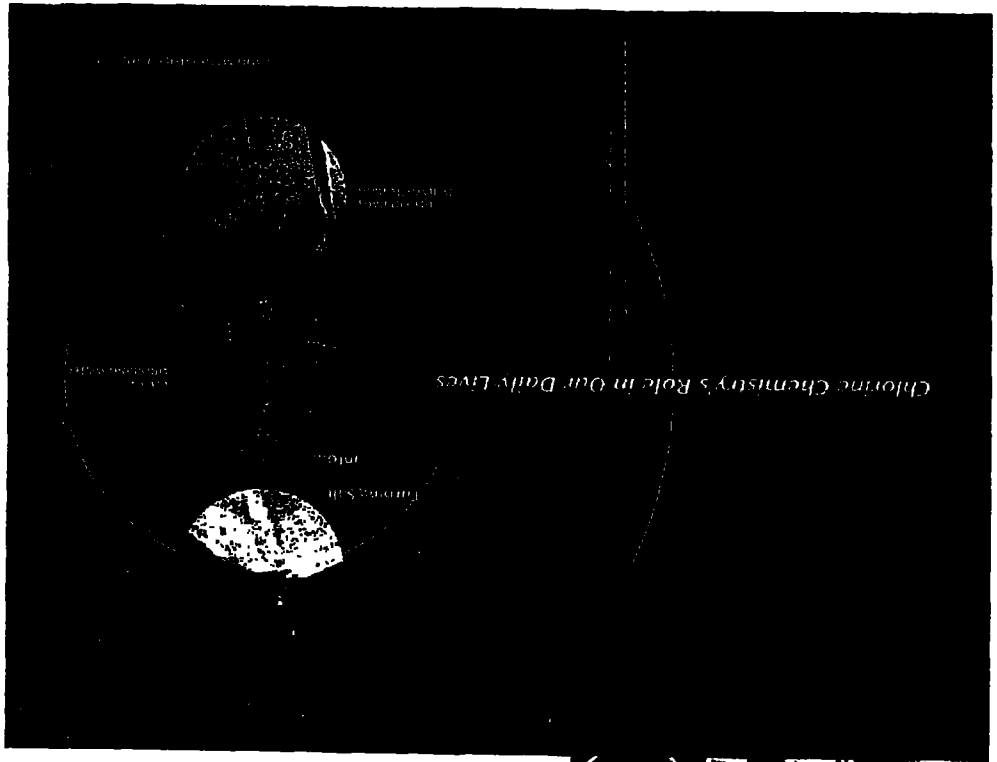
- Oral and Written Testimony on Rail Fuel Surcharges. Comments were submitted to the Surface Transportation Board (STB) in April 2006 and oral testimony was presented the STB in May 2006 on behalf the American Chemistry Council. The testimony was submitted in STB Ex Parte 661. The issue is under adjudication.

- Testimony on Rail line Abandonments and related Environmental Damages. Comments were submitted to the Surface Transportation Board (STB) in June 2006 and July 2006 on behalf of ALCOA. The testimony was filed in STB Docket No. AB-290 and No. AB-149. The issues are under adjudication.

- Oral and Written Testimony on the second STB Small Shipment Rate Case. Comments submitted to Surface Transportation Board (STB) on behalf of Williams in STB Docket NOR 42098 in 2006-2007. The case was resolved successfully through mediation.

- Oral and Written Testimony on railroad Casualties and Insurance Costs. Comments were submitted to the Surface Transportation Board (STB) and oral testimony was presented to the STB in July 2008 on behalf of the Chlorine Institute. The testimony was submitted in STB Ex Parte 677. The issue is under adjudication

- Oral and Written Testimony Reviewing the STB's Uniform Rail Costing System (URCS). Comments were submitted to the Surface Transportation Board (STB) and oral testimony was presented to the STB in April 2009 on behalf of the National Industrial Transportation League, The American Chemistry Council, The National Grain and Feed Association and the Edison Electric Institute. The testimony was submitted in STB Ex Parte 431. The issue is under adjudication



Vinyl pipe: safe water delivered safely

More than one-third of all vinyl produced is made into pipes, including pipes for municipal water delivery and wastewater removal, culverts and industrial piping systems. Vinyl pipes can have a long useful lifetime of up to 100 years or more, and like most vinyl construction products, require virtually no maintenance.

More important, vinyl pipes help to keep disinfected drinking water safe. They are much more resistant to the formation of microbial and bacterial growth that occurs along the interior walls of water distribution pipes. This activity, known as biofouling or biofilm build-up, can pose a threat to public health and is present in almost every water distribution system. Biofilm build-up occurs to a much greater degree in metal or concrete pipes.

In addition, vinyl pipes help to preserve a precious resource: water. Cast iron and ductile iron pipes are the most susceptible to corrosion and breakage. Weak spots caused by rusting can form in these materials and in some cases penetrate the pipe wall and cause leaks, resulting in water loss, pipe breakage and, potentially, water contamination. A single pipe leaking just 2.2 litres of water per minute equals more than 110 000 litres of lost water each year.

Vinyl medical products

Vinyl has been the material of choice in the health care industry for over 40 years – over 25 percent of all medical plastics and over 70 percent of all disposable medical applications are made of vinyl. This includes the bags containing life-giving blood, and the tubing and valves that transport it. Intravenous containers, tubing, dialysis equipment, examination gloves, inflatable splints, inhalation masks and thermal blankets are also vinyl products.

Vinyl is the material of choice for these applications because it offers a unique combination of properties – it is easily sterilized, flexible without kinking, durable, transparent (so volumes and flows of liquid can be monitored) and dependable.

Chlorine Chemistry's Role in Our Daily Lives

Chlorine is one of the most abundant naturally occurring chemical elements. It also plays an important and significant role in the manufacture of thousands of products we depend on every day. Industrial production of chlorine involves passing an electric current through a solution containing salt and water. (For more details on chlorine's production process, please see the insert *Chlor-Alkali Manufacturing Processes*.)

This simple process transforms the salt, creating almost an equal amount of chlorine gas and sodium hydroxide or caustic soda.

1999 Global Demand for Chlorine/Caustic Soda

Caustic soda is widely used by many industries, such as the food, pulp and paper, aluminum, and textiles. (For more details on caustic soda, please see the insert *Chlorine's Important Co-Product: Caustic Soda*.)

Chlorine is used as a disinfectant. And according to the World Health Organization (WHO), chlorine's use in water treatment has been one of the most significant advances in public health protection. Chlorine plays a key role in controlling bacteria and viruses in water that can cause human illness, as evidenced by the virtual absence of waterborne diseases such as typhoid and cholera in developed countries.

Untreated or inadequately treated drinking water supplies remain the greatest threat to public health in developing countries. Over one-fifth of the world's population does not have access to clean water and more than one third lack adequate sanitation. In these countries, diseases such as cholera, typhoid and chronic dysentery are endemic and, according to WHO, kill thousands of people each day. Chlorination continues to offer the most effective and affordable option for providing safe drinking water for the world's population.

In addition, chlorine (in its more recognized form – bleach) is one of the most effective and economical germ killers, provides significant benefits. Since it was first used in the maternity wards of a Vienna hospital more than 150 years ago, chlorine has been a powerful weapon against life-threatening infections caused by viruses and bacteria. One such bacterial infection is Legionnaires' disease, which can be transmitted through air conditioning systems. Chlorine is used to disinfect these systems and rid them of the bacteria. It is widely used in hospitals to prevent contamination of patients' burns and wounds, and to disinfect medical equipment such as kidney dialysis machines.

Chlorine also plays a vital role in reducing food-borne disease from the farm to the fork. The Expert Committee on Food Safety, convened by the World Health Organization and the United Nations Food and Agriculture Organization, states: "... illness due to contaminated food is perhaps the most widespread health problem in the contemporary world and an important cause of reduced economic productivity." Chlorine-based solutions of varied strength are routinely used to disinfect crop storage and livestock facilities. In many countries, food processing and preparation facilities use chlorine solutions to disinfect food surfaces and food contact surfaces.

Global patterns of food distribution and changing consumer demographics are new challenges in the effort to control foodborne illness and reinforce the important role of chlorine as food safety.

The chlorine tree

But chlorine's unique properties mean it can be used in numerous and varied ways. Its reactive nature allows it to bond with other chemical elements to form substances that make up, or lead to, products we use every day. It is called the single material on which production of other chemicals most depends. It is involved in over 50 percent of all commercial chemistry and its myriad uses are displayed on the "chlorine tree". (Please see inside.)

Yet, while chlorine is needed along the way to make chemical processes happen, many of the resultant products don't contain chlorine, such as polyurethanes, polycarbonates and epoxy resins. Because these types of compounds are versatile, lightweight, easily adaptable, strong, durable and save energy, they are used to make a broad range of products from electronics to packaging and automotive to construction.

Chlorine Chemistry's End Uses

Polyurethanes, for example, are often used for seats, dashboards, sound insulation, door panels, and foam mattresses. In fact, about 80 percent of the population in Latin America sleep on inexpensive, flexible polyurethane foam. If not for this affordable alternative, a vast majority of the population would continue sleeping on uncomfortable cotton, hay or horsehair mattresses.

Perhaps one of the most critical uses of chlorine chemistry involves our health. Today, about 85 percent of all pharmaceuticals contain or are manufactured using chlorine chemistry, including medicines that treat heart disease, cancer, AIDS and malaria. Chlorine is also essential in helping to produce a wide range of medical equipment, from X-ray and mammography films to medical tubing and blood bags.

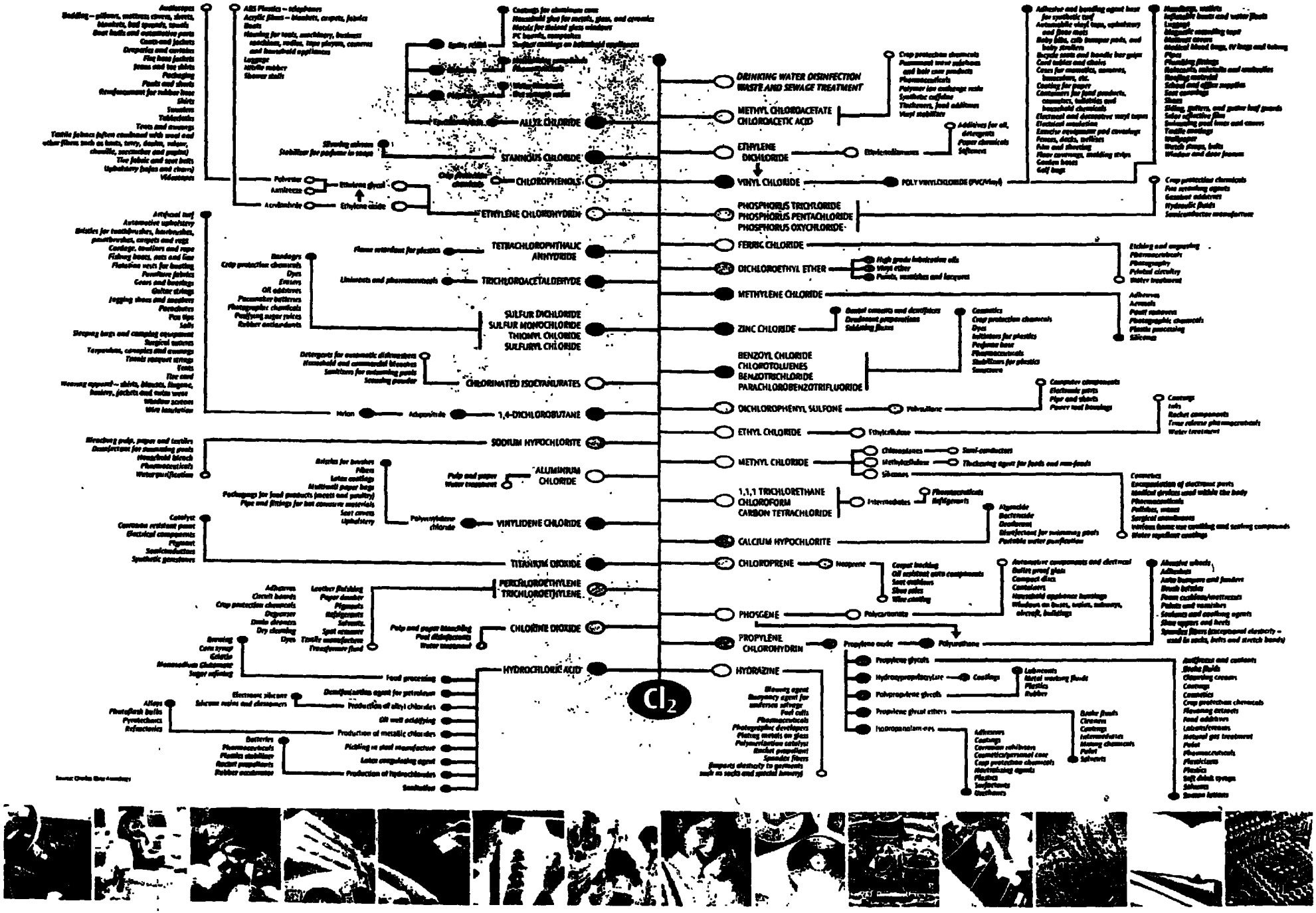
Vinyl, a major product

One of the major products of chlorine chemistry is polyvinyl chloride, known as PVC or vinyl. Invented in the United States in the early 1920s, it was first used for insulated wire, raincoats and shower curtains. As vinyl's versatility and flame-resistant properties became more widely known, dozens of new innovative uses were developed and manufacturing plants established. Today, vinyl is the second largest selling plastic in the world.

Vinyl products – such as wire and cable, siding, windows and doors – are a staple of the construction industry because they are easy to maintain, long lasting, attractive and economical. In fact, vinyl is the material of choice for European window frames because of low maintenance. In North America, vinyl is the material of choice for siding, decking, railings and house trim because it neither rots nor requires painting. Vinyl piping transports water to thousands of homes and industries because it is resistant to corrosion, microbial growth and leakage.

Products of the Chlorine Tree

Chlorine is one of the most abundant naturally occurring chemical elements. It also plays an important and significant role in the manufacture of thousands of products we depend on every day.



HIGHLY CONFIDENTIAL
EXHIBIT___(TOC-3) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(TOC-4) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(TOC-5) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT___(TOC-6) REDACTED

CERTIFICATE OF SERVICE

I do hereby certify that I have delivered a true and correct copy of the foregoing Complainant's Opening Evidence to the following addressee at the address stated by e-mail, and by depositing same in the United States mail, first class postage prepaid, this 24th day of August, 2009:

Michael L. Rosenthal, Esq.
Covington & Burlington LLP
1201 Pennsylvania Avenue, N.W.
Washington, DC 20004

Thomas W. Wilcox